JANUARY/FEBRUARY 1988
£2.50

COMMODORE Disk User

NEW

FOR THE C64, C128 USERS

▼ ON THE DISK ▼

UTILITIES

DISK LIBRARIAN
DISK MATE
TEXT CRACKER
NOLUXE PAINT
C128 RAM DISK

GAMES

FIVE UP
QUAD
PLUS
MICRONET
DEMOS

IN THE ▶▶ MAGAZINE

STRATEGIC SIMULATIONS – A LOOK AT THE STRATEGY MASTERS
DEFINITIVE PROGRAMMING
HOW TO SMOOTH SCROLL
DISK ADVENTURING
SHOOT 'EM UP CONSTRUCTION KIT REVIEWED

APPLICATIONS SOFTWARE FROM ABACUS

XPER-64 Expert System

XPER is the first expert system for the CBM 64. Ordinary datavase systems are good for reproducing facts, but an expert system guides you through a mountain of facts - allowing you to make expert decisions. Using this unique knowledge based package, you first build the information into your database using XPER's simple loading procedures. Then by using fast, efficient search techniques, XPER easily guides you through the most complex decision making criteria. Includes full reporting and data maintenance capabilities. Used by Doctors, Scientists and Professionals.

Disk and Manual Package for the CBM 64/128 (64 Mode) **£33.95**

CADPAK - ENHANCED VERSION!

CADPAK is a superb tool for computer aided design and drawing. Using either the Keyboard, Lightpen or MOUSE (New Feature!), you can draw directly on the screen to create and edit pictures, drawings, plans, etc. The new dimensioning feature allows exact scaled output of your design. A massive selection of commands including Zoom - to do detailed on a small section of screen, Line, Boxes, Copy sections of screen, Edit & use different Character Fonts, plus much more. Save design to disk. Hard copy to most Dot Matrix Printers. CBM 64 version works in 200 ★ 320 Resolution, CBM 128 works in 640 ★ 320 Resolution.

Disk and Manual Package for the CBM 64 **£24.95** CBM 128 **£29.95**
Above package (CBM 64) & Commodore 1351 Mouse **£59.95**
Above package (CBM 128) & Commodore 1351 Mouse **£69.95**
Lightpen **£12.95** Commodore 1351 Mouse **£29.95**

(Note - Only Works with 1531 Mouse)

SUPER C - For The CBM 64 OR 128

One of today's most popular languages, C is excellent as a development tool, produces 6510 machine code - and it's very easy to transport C programs from one computer to another. Our compiler makes full use of this versatile language; it includes and editor, compiler, linker and handbook. Source programs can up to 41k long, 53k in object code! The linker allows up to 7 modules to be linked for later execution. Runtime library can be called from Machine Code or a Basic lookalike program. A Superb C Language Package.

Disk and Manual Package for the CBM 64 & 128 (2 Versions on 1 Disk!) **£34.95**

COBOL - Easy to Learn Business Language

COBOL is the most widespread Business programming language in use today. Now you too can learn this English like language - fast, with our COBOL package. The COBOL System features a syntax checking editor, interpreter, compiler and symbolic debugging aids, and much more. Includes sample programs.

Disk and Manual Package for the CBM 64 OR 128 just **£29.95** - ***super value!***

ACCESS Order Hotline/Enquiries Telephone 0706 43519 (After 1pm Please).
Prices include VAT and P&P. Send Cheques or P.O. or S.A.E. for Catalogue to:-
RAMSOFT (Dept DU), 24 Bankfield Lane, Norden, Rochdale, Lancashire OL11 5RJ.

CONTENTS

Commodore Disk User
Volume 1 Number 2
January/February 1988

IN THE MAGAZINE

Disk Info 4
How to use this month's disk

Update 5
The latest news from the world of Commodore

Letters 8
Your chance to air your views

Shoot 'em Up Construction Kit 9
A look at this superb program from Outlaw

Reviews 11
We look at the latest games to hit the streets

Strategic Simulations 17
The Strategy games specialists

Disk Dungeons 34
Our regular delve into adventure games

Scroll Your Own 38
How to create your own scrolling backdrops

Puzzles 41
Light relief and a chance to win a binder

Definitive Programming 42
How to use User Defined Graphics

Linking Into Micronet 46
A look at the UK's largest leisure viewdata system - Plus FREE software

Contributions 49
How to write for Commodore Disk User

Evesham Competition 50
Your chance to win a disk drive or a slimline case

ON THE DISK

Disk Librarian 20
Keep track of what's on which disk

Disk Mate 24
Handy pop-up disk functions

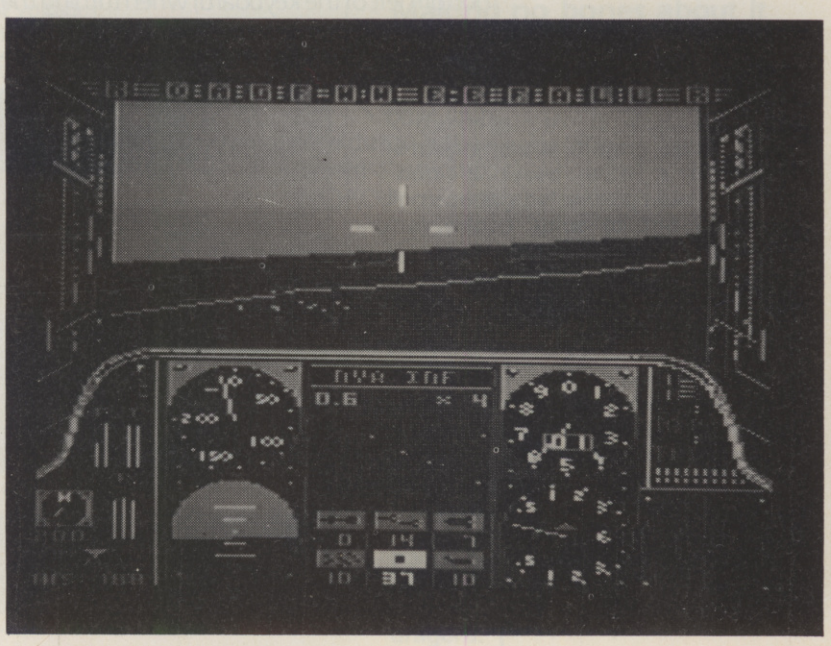
Noluxe Paint 26
A superb low-res drawing package - great for title screens

Text Cracker 28
Grab those character sets you like for your own use

Quad 29
New life for the brick/bat game

Five Up 30
Can you win at this dice game?

Ram Disk C128 32
Our first program for the C128



Editor: STUART COOKE
Deputy Editor: FIN FAHEY
Advertisement Manager: STUART TAYLOR
Copy Control: LAURA CHAMPION
Origination: EBONY TYPESETTING
Design: ASP DESIGN STUDIO

ARGUS PRESS GROUP

Commodore Disk User is a bi-monthly magazine published on the 3rd Friday of every alternate month. Argus Specialist Publications Limited, Commodore Disk user, 1 Golden Square, London, W1R 3AB. Telephone: 01-437 0626 Telex: 8811896

Opinions expressed in reviews are the opinions of the reviewers and not necessarily those of the magazine. While every effort is made to thoroughly check programs published we cannot be held responsible for any errors that do occur.

The contents of this publication including all articles, designs, drawings and programs and all copyright and other intellectual property rights therein belong to Argus Specialist Publications Limited. All rights conferred by the law of copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Limited and any reproduction requires the prior written consent of the Company.

DISK INSTRUCTIONS

Before you use your disk for the first time, read this.

We have done our best to make sure that Commodore Disk User will be compatible with all versions of the C64 and C128 computers and their associated disk drives.

Getting the programs up and running should not present you with any difficulties at all, simply put your disk in the drive and enter the folowing command:

LOAD "MENU",8,1

Once the disk menu has loaded you will be able to start any of the programs simply by pressing the letter that is to the left of the program that you want to use.

C128 users please note that you should be in C64 mode when using the disk. You can enter C64 mode by either:

i) Holding down the Comodore key (bottom left of the keyboard) when turning the computer on or,

ii) After turning the computer on type GO64 and answer "Y" when prompted "ARE YOU SURE?"

It is possible for some programs to alter the computer's memory so that you will not be able to LOAD programs from the menu correctly until you reset the machine. We therefore suggest that you turn your computer off and then on before loading each program.

Copying the programs

The disk is not protected in any way so you can copy the programs onto your own disk should you wish. All of the programs can be loaded independently of the menu by following the instructions with the relevant article.

We would stress that you should only copy the programs on the disk for your own use. After all, we don't want to have to start protecting them.

Reading the directory

Should you examine the directory of Commodore Disk User you will see that there are two files present on the disk. The first are the PRG files. These are the actual programs that are on the disk. The second type of file is as the USR file. This file is only used as a comment or separator on the directory listing and cannot be loaded.

A USR file of a solid line is used to separate each of the programs. If you're copying programs onto your own disk then make sure that all necessary parts are copied over.

Disk Problems

Should you have problems loading any of the programs on the disk DO NOT return them to the editorial office. All faulty disks should be returned to:

Commodore Disk User Vol 1 No 2
Returns
Disk Copy Labs
20 Osyth Close
Brackmills Industrial Estate
Northampton
NN4 ODY

and a replacement disk will be sent to you. Note: Do not return the magazine.

Apologies

Some of you out there have had a lot of problems with the disk supplied with issue 1 of Commodore Disk User - namely nothing will load. This is because a number of disks were damaged by being badly packed for distribution, a process not under our control. We would like to apologise to all our readers who have been caused trouble and expense by this, and add that the problem has been corrected on the latest issue. Of course, it is impossible to guarantee that every disk duplicated will be a perfectly functional copy, very few of you should have problems this time. Remember, if you do, we are always happy to provide a replacement. Just return the disk to the address above.

Update

Everything that's going on in the world of Commodore disk computing

Low-price modem

Getting online cheaply is now a possibility with the Demon 2 modem from Dataphone, which will retail for less than £80.

The Demon 2's features include full control from the user's computer, autodialling from keyboard or directory, and an auto-answer facility which can be used when the user is out.

The modem will function at the standard 1200/75 and 300/300 baud rates, and can also handle data at 1200/1200 baud half duplex, a mode which is well-adapted to bulk uploading. It can save the user a lot of trouble of automatically selecting the correct baud rate for either sending or receiving.

When used with the C64/128, however, the Demon 2 requires an RS232 comms package, such as the Bob's Termpro from Precision Software. It has a full three-wire telephone circuit, which means that it won't 'tinkle' the bells of extension telephones on the same circuit, and comes complete with a built-in power supply, fitted mains plug, and a three-metre telephone cable which connects to standard sockets.

The modem can be turned on and off independently of the computer so that it doesn't occupy the telephone line unnecessarily. Six LEDs on the front panel indicate transmit/receive speed, plus the status of the line and the computer.

Dataphone says that Demon's circuitry is sophisticated enough to handle poor telephone lines and protect against line transient voltages.

For further information contact: Dataphone Ltd, (0733) 230240

Be President - at a Budget price

Budget disk games may be here at last with the release of President by Addictive Games. The game allows you to play the role of a national leader and evaluates your ability to handle crises.

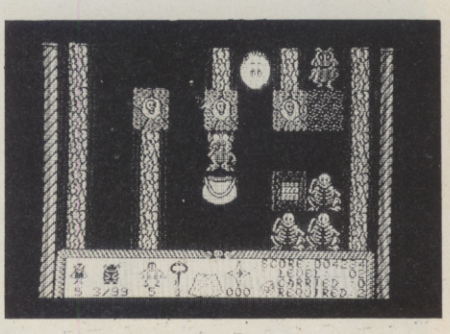
In President, you have to fight an election every two years. You are evaluated on the basis of decisions made in a number of areas.

One of the most important is oil. Every president is faced with the problem of meeting the burgeoning needs of an oil-greedy nation. The game expects you to explore for oil, develop the finds, and get the black gold for the consumers. Enemy nations attempt to hamper your nation's progress and must be fought off; so battle tactics and defence strategy count in this area.

Finance is also a major consideration. Oil produced is a valuable source of revenue, which can be used to purchase gold to maintain the value of your currency.

The electorate can also be pleased, or antagonised, about a wide range of issues, including food, health, and economic problems. It isn't always obvious where the right areas to spend money are.

President is available from Addictive Games on 01-804 8100. It retails at £6.99.



Making no bones about it

Superior Software's latest release, Bonecruncher, is a maze game with difference. In it you play an entrepreneurial dragon called Bono, who is faced with a series of increasingly perplexing tasks. Superior has added spice to the game by organising a competition with a prize of a portable radio for everyone who completes the game.

Bono is an enterprising little dragon who has opened a bathhouse for the denizens of the deep sea. The smell of these monsters, however, has lured malevolent glooks into the bathhouse, who are hanging around, occupying too much space. Spiders and other nasties have taken up residence, but at least these are of some use - their bones can be used to make soap for the bathing monsters. Unfortunately they also have a penchant for eating dragons.

The problem is to keep the maze-like bathhouse running and survive.

Bonecruncher is produced by Superior Software which is on (0532) 459453 the game and retails at £11.95.

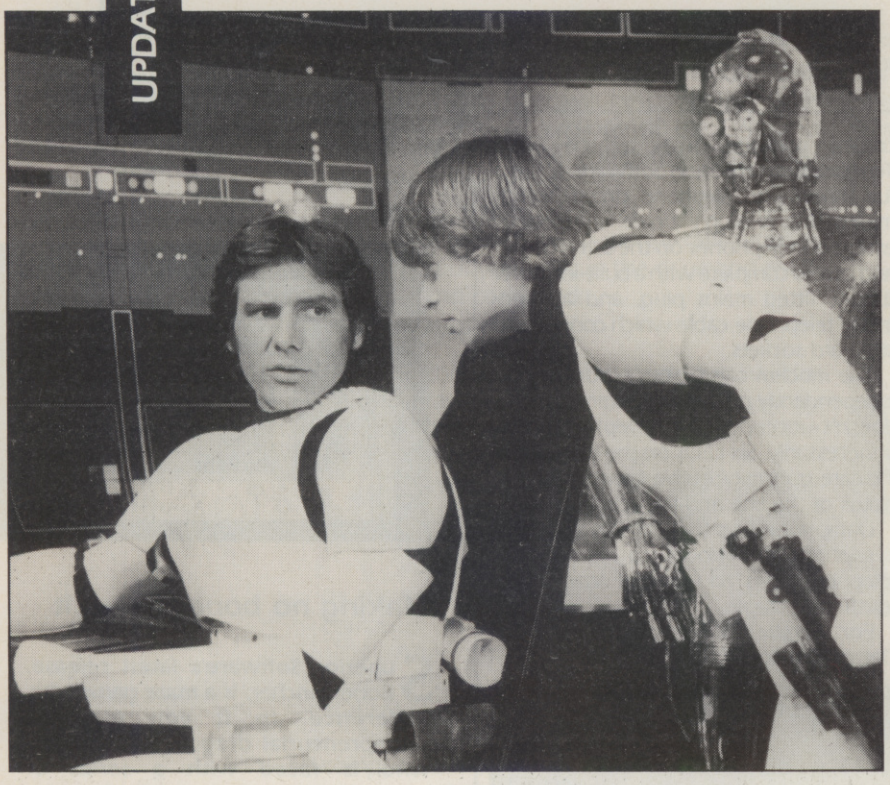
Luke out for Star Wars

At last, the computer version of Star Wars - the arcade game you can never get a go on because the queue is always longer than the one at the Job Centre. Domark has released the game as the first part of a trilogy, using full vector graphics as seen in the original.

The original game appeared in the arcades some four years ago, and became

▶ ▶ ▶ ▶ ▶ ▶ ▶

NEWS NEWS NEWS



an instant hit, since arcade game punters have never really been treated to advanced 3D vector graphics of the ilk that smug C64 owners are by no well used to.

The conversion has been anticipated for a long time, and folows exactly the same plot as the original - it has only been released after extensive evaluation by Lucasfilm.

The game asks you to set the difficulty level, after which you have to zap your way through numerous waves of Empire Fighters. Eventually you get to the Deathstar, whereupon the game becomes a vector-graphic trench zap. Ground fire must be avoided before you can make the final bomb run to deliver a proton torpedo where it is most needed and vaporise the battlestation. Of course, the force must be with you.

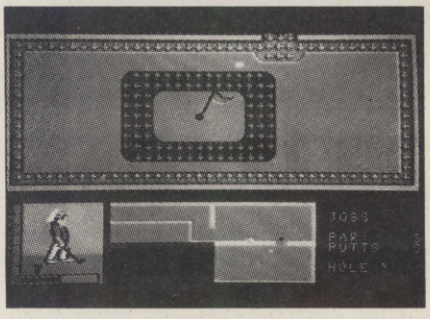
Digitised speech has also been in places to authenticate the feel of the game. Star Wars will be the first part in a trilogy containing, predictably, The Empire Strikes Back and Return of the Jedi which Domark says will be released next year. It will retail at £12.95. For further information contact Domark on 01-947 5622.

EA says 'Skate or Die'

EA has announced a plethora of new games for the Christmas season, including Skate or Die, a skateboard simulation, and Mini-Putt, computerised crazy golf.

Skate or Die is th first Electronics Arts program from the company's own inhouse artistic designers. The program allows you to select your own skateboard and then to take part in one of five different skateboarding competitions.

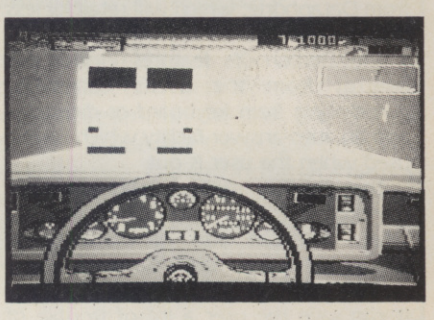
Three of these are modelled on professional skateboarding competitions: Ramp Freestyle; Downhill Race; and Ramp Hill Jump. Up to eight players compete for the best times and highest points. Two special events, Pool Jousting and Innre City Downhill Battle are also available.



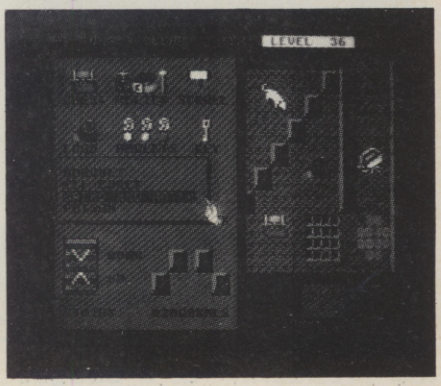
Skate or Die costs £14.95.

Mini-Putt, the crazy golf game, offers a variety of zany theme courses. It features a three-window display featuring the play area, a general overview of the screen and a close up of Mini-Putt Pete, your character. Mini-Putt costs £14.95.

A less zany note is struck by Test Drive, a driving simulation from Accolade which EA is marketing. Test Drive is not all that worthy, though, as the cars you have to drive are all high-performance sports cars ranging from a Ferrari Testarossa to a Lamborghini Countach. Each of the program's cars is designed to simulate the real article's performance as far as possible.



The program displays the interior of the car and the road from the vintage point of the driver. The object is to drive different road sections within a time limit. Hazards include slower vehicles, oncoming traffic, falling rocks and the highway patrol. But you have to watch your speed. If you're caught speeding, then a police car appears in the rearview mirror with its lights on. The game ends when you are pulled in this way, go off the road, or your time limit runs out. Test Drive retails at £14.95.



Demon Stalker is a one- or two-player arcade adventure with 99 levels of mazes to negotiate. On level 100, the player finally encounters Calvrak the Demon.

Each level contains keys, scrolls, chests, food, bells and magic, however these items can be either good or evil. Your health and strength points increase with experience - they need to, since increasing quantities of monsters spill forth from the 'vortex generators' placed on the various levels. These keep coming until their sources have been destroyed.

Demon Stalker does not restrict the player to the game provided, but contains a complete menu-driven construction set which allows the player to build an entire game from scratch, or modify the existing

game.

Besides the games, EA is marketing Instant Music, a music competition system. Instant Music uses a non-standard form of music notation which, the designers claim, is exceptionally easy to read. They also say that it contains a level of artificial intelligence which corrects the author's mistakes - the program will never let the user play out of tune or in the wrong rhythm.

The system will play four instruments or the user can take control of one and jam along with the other three using mouse or joystick.

All the Electronic Arts programs mentioned retail at £14.95. For further details contact the company on (0753) 49442.

Add four-play to your joystick

One of the problems with complex arcade games and simulators is that you often have to use the keyboard as well as the joystick to run the game properly. Cheetah has had a go at solving the problem by launching the Cheetah 125 Special which has no less than four independently-controllable fire buttons.

Besides the extra buttons, the Cheetah has several other features, such as automatic centre return, and extra-strong stabilising suction cups. Extra control is provided by rotating the stick, and an autofire facility comes as standard, together with eight-directional control. Those who are worried by all this complexity will be pleased to know that the 125 Special functions as a normal joystick too.

The Cheetah 125 Special costs £12.99 and comes with a 12 month warranty.

Cheetah has also launched a low-cost MIDI interface for the C64. MIDI is a standard which allows music fans to interface their home computers with digital synthesisers and other sound-making devices.

Using Cheetah's system, it is possible to control any MIDI-compatible instrument from the computer keyboard. Features include: real or step time input from the instrument or computer; full MIDI-compatible assignments; note storage in the thousands; forward and reverse sequence playback; MIDI delay facility; an eight-track MIDI sequencer and a full sync facility.

The interface plugs into the C64's memory expansion port. The necessary software to run it, plus a MIDI lead, is included in the overall package, which costs £49.95. For further details contact Cheetah on: (0222) 555525.

Cruising for a Bruising

Argus Press Software is clearly out to prove that you don't have to be American to market a 'zap-the-commies' game. The Hunt for Red October has you playing the part of a defector in command of a submarine that is being hunted by the entire Russian Navy. The object of your game is to rendezvous your sub with the US Navy, but the Sovs are out to stop you. The Hunt for Red October is available from Argus Press Software on 01-439 0666 for £24.95.

The Alien Way

CRL has announced its range of Christmas season titles.

The humans in ! Alien are thoroughly nasty, looking on the lovable aliens as potential food sources. The object of the game is to escape from the beastly bipeds, which unfortunately means making your way through a vast labyrinth. Unfortunately, a ticking time bomb adds to your troubles...

Vengeance is another maze-structred game, in which you have to fight your way through an awesome labyrinth of corridors and passageways inside an alien craft. To succeed, you have to collect a number of components, but unfortunately gun turrets, missile stations, energy pods and the 3D monster stand in the way.

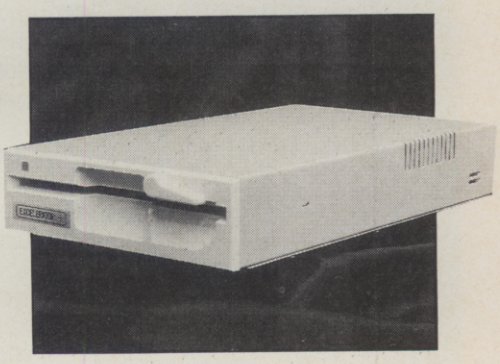
Jet Boys is a smooth-scrolling shoot-em-up. It involves real-time combat above and below the surface of a distant planet. The object is to get closer and closer to the core and in the process pich up increasingly powerful weapons.

On each level of Jet Boys, you are confronted by a large and very aggressive beast which is equipped with its own individual armoury.

Life Force requires you to pilot, a super tank. Your orders are to repair, and stabilise, a power station in orbit. A bug in the system, however, means that the station has mutated into something inimical and has created mutated lifeforms which have to be eliminated before you can complete your task.

Finally, Mandroid is CRL's follow-up to Cyborg. Once again, you are a superpowered and mechanised semi-human on a mission to retrieve stolen blue prints. The search takes you through many settlements where you encounter foes of gruesome proportions, including bandits, drunkards and fallen women.

All the VRL titles will cost £14.95 each. CRL can be contacted on 01-533 2918.



Excelerator extra

Evesham Micro's slim-line Excelerator now has another attraction - free software. For the standard price of £159.95 for the Excelerator Plus drive, Evesham is also offering GEOS, the Graphic Environment Operating System, from Berkeley Software.

GEOS offers the user a WIMP environment of the sort seen by users of the Amiga. It includes: desktop, organiser and file manager; GeoPaint, which is a graphics editor; GeoWrite, a graphics-based wordprocessor; and DiskTurbo, a fast file loader.

For more information on the Excelerator deal contact Evesham Micros on (0386) 41989.

Letters

This is where you, dear readers, get the chance to have a say. Questions, compliments or insults, we'll do our best to publish them all (well, the first two anyway!)

To Zap or not to zap?

Dear CDU,
Thanks for a great disk, I am an arcade fan, and will find 3 in 1 Plus very useful in programming my own games. I also liked Ski Run a lot.

I do have a couple of worries though. Your magazine (not so much the disk) seems to be aimed at people who like 'slow' games, stuff like adventures. I don't know anyone who plays these, and I think those who do must be older and don't care much about good computer games anyway.

Why don't you review stuff that most people want to see, like Kung Fu games and Decathlon-type events? Adventures are so boring.
Jerry Halford
Crewe

Dear CDU,
I think a disk-based magazine for Commodore users has been long overdue, and I'm delighted at the appearance of Commodore Disk User, so I hope you don't mind me nagging you about the content of your disk.

The utilities are fine, and Directory Designer in particular is a gem, endlessly useful. But those games... Surely you could have found something a bit more intelligent than Ski Run, a hopelessly simple-minded race game. Mobster looks pretty good initially, but quickly degenerates into a simple-minded shooting alley.

With all that disk space available, don't tell me that you couldn't come up with a good-sized adventure or strategy game. Your magazine would seem particularly adapted to publishing adventures and role-playing games, since these cannot be put in listing-based mags like Your Commodore, as whoever types them in knows the solution straight away.

Come on, CDU, not everyone out here is keen on sports or blasting things!
Ms. A Melly
Sevenoaks

Just goes to show that you can't please all of the people all of the time. First of all, Jerry, we aren't ignoring arcade games at all. We do, however, only cover games that are available on disk, and a lot of arcade games appear only on cassette, particularly in the budget range. As for the disk, you might like to check out Quad, which we believe is an original arcade variant.

We'd also like to take issue with your view that adventures/role-playing games are only for older players. These games, together with strategy games, are increasingly popular with all age groups.

Ms Melly's point is well taken. In our defence, however, we are suffering from the fact that most magazines don't publish games of this sort, because they are listings mags, and readers tend not to type in the long stretches of code involved in advanced games. We don't have that disadvantage, but so far we haven't received any large-scale games from our contributors as they don't expect magazines to publish them. So, come on you lot out there, get those megagames rolling in!

Appalled

Dear CDU,
I was appalled to find, in a magazine which must appeal strongly to the younger generation, an encouragement to deal in drugs. I refer to your game Mobster, where you can not only sell these substances, but take them!

Surely you must realise that young people are very impressionable, and publishing damaging ideas like this could go a long way to negating all the current, and very worthy, campaigns against drug abuse.

This flaw spoils what I think otherwise is a very good magazine.
Jacob Vilnius
Worthing

We feel that you have missed the point of the game, Mr Vilnius. Mobster is about being a vicious gangster in the 1930s. The Mafia have never dealt in dolly mixtures, and the game is more than a little tongue-in-cheek. Young people are quite capable of telling fantasy from reality - most computer games involve violence of some sort, but it's noticeable that the people who like playing them are far from being violent themselves.

Continued on page 33

Shoot-'em-up Construction Kit

How to build a first class zapper the easy way. The Wizball boys bring professional joystick action within your grasp.

by Norman Doyle

Wow! I don't often say it but, like, wow! this is crucial stuff, man. When they said they were doing a construction kit, I thought Chris Yates and John Hare were treading a well-trodden path to disaster but what a blast they've come up with.

What Chris and John have done is to break the shoot-'em-up down into eight separate parts. Create sensible routines and screen layouts to help the user design the game elements which can then be combined to make games that look incredibly different.

Editing Sprites

All the little characters in the game are sprites. If it moves, sprite it. Any of 127 sprites can be used, abused and generally mangled or manipulated.

The sprite design screen is one of the best and fastest to use that I've ever seen. A really slick multicolour display which can be designed, copied and then flipped, wrap scrolled in four directions, mirrored or modified for animated sequences.

Edit Objects

This is where you breathe life into your creations. An object is any of the sprites that you've created and up to 58 objects can be chosen, each having up to 18 frames of animation. Obviously for all the sprites to have this number of animation frames you'd need over 1000 sprite definitions. A total of 18 frames is a bit luxurious and most times you won't need more than about six.

Some of the objects have specific allocations such as Player 1 Sprite or Player 1 Bullet so care has to be taken to read the allocation at the top of the editing screen. Even if you don't you can copy the information entered into the correct object page and this facility can also be used if two different objects have almost identical movement patterns.

If the object moves it can have a direction-dependent animation instead of the continuously cycling one. That means if a spacecraft moves left it will automatically select the sprite which tilts in that direction.

Finally, the various parameters can be set for the score awarded for a kill, how many hits to make a kill, type of bullet, firing pattern, SFX (bullet and explosion), bullet speed, firing rate, and the result of a collision with the player. What more could you ask for?

Edit Background

This is the wallpaper that scrolls along as you advance through the game. 250 character blocks can be defined, each one consisting of a 5x5 matrix of character squares. Each character can be designed individually with three fixed colours and one that can be selected from the eight principal colours on the number keys of the computer.

Once you've used the character editor - a smaller version of the sprite editor - you can build up each character block from these elements. Blocks and characters can be copied easily and the map can be built up block by block using the Edit Map option.

Editing Sounds

There are 24 different sound effects built into the program but this is not as limiting as it sounds. Each effect can be fine tuned to your own requirements. Waveform, attack, decay, pitch, speed and time can be varied until you hit on the sound you like. If this sound happens to be linked to the wrong category, you can copy across from one definition to another.

Why let the players have it all their own way? This is the meanie panel where you choose the restrictions that will keep them cursing all the way through.

▶ ▶ ▶ ▶ ▶ ▶ ▶

The menus for Player One and Two are the same. Whether the player can take part, the number of lives and bullets, speed of player and bullet, range of bullet and direction can be determined. The other consideration is - what happens if an impassable block is reached? The option is between death or just stop.

Really mean operators will be pleased to note that the movement of the player can be restricted to a fixed area of the screen, as large or small as you choose. The more generous designer may show magnanimity by giving away extra lives for each 10,000 points scored.

Editing Attack Waves

This is where the going gets really tough! You select the rough area of the map for each enemy object, fine tune to the exact point and press fire to place it at its start position. The pattern of movement can then be 'drawn' on the screen with the joystick and stored in the games memory.

There is a limited space for these moves so keeping it simple is the key to the hairiest shoot-'em-ups with lots of aliens.

Megamonsters such as you find at the end of each level of Nemesis can be created by joining several sprites together. These can then be animated to follow a flight path. Some of the possible effects are absolutely stunning.

Editing Levels

There is a maximum of 22 levels that you can define. These can be any number of screens long and can be held still for a selected time while the player is mauled by a mega-monster, scrolled at a chosen speed or push-scrolled when the player hits the top of the screen.

This is where the game plan really comes together and the temptation is to go off and blast a few objects...and why not? After all, the Test function has an infinite lives cheat mode so you can try the game from beginning to bitter end.

Storage

Saving can be directed to disk or tape despite the fact that you're using the disk version.

There are two modes of saving. The first is saving the whole game in a form which can be loaded independently of the construction program - good enough to sell, in fact.

The second save allows each design section to be saved individually for later fine tuning after play testing, or simply to allow you to switch off in mid game design.

In later issues of Commodore Disk User we'll tell you how the sprites designed with the program can be manipulated for other projects.

Not so Silly

The good news is that you can sell your games without having to pay royalties to Palace Software, the programmers or anyone else. This is not as silly as it may sound. All four of the free example games are worthy of consideration by the budget software houses and there's no reason why yours shouldn't be equally as good.

The bad news is that you can't have a loading screen or fantastic musical accompaniment. This may affect your chances with the budget people but surely your game is just too good to ignore, isn't it?

The design of the screen can also take a little smoothing out. If too much is happening on the screen at the same time, the system can't cope and the movement slows down and judders. If you like you could argue that some of the best scenes of murder and mayhem at the cinema are performed in slow motion. I doubt if the potential buyers or your game would see it that way.

The three rules all programmers must remember are:

You can only scroll the screen vertically. Horizontal is out.

Don't try to do too much on the screen at the same time.

Try to avoid having more than eight sprites in horizontal alignment on the screen or else the extra ones will become invisible enemies!

The Shoot-'em-up Construction Kit may be called SEUCK for short but suck it doesn't! It's a brilliantly constructed and executed utility. The whole package is self-explanatory and does not need a heavy tome full of instruction. All you need is printed on a neat, easy to consult, poster which can be pinned on the wall behind or beside your computer.

Standard Slapshot shoot-'em-ups are possible, but you can also produce Commando games, Gauntlet games and you may even break the mould and produce something that no-one has thought of before.

As far as I'm concerned the only limitation to the Shoot-'em-up Construction Kit is the size of the gap between your ears. Are you big enough to take up the challenge?

AT A GLANCE

Name: Shoot-em-up Construction Kit
Supplier: Outlaw/Palace, The Old Forge, 7 Caledonian Rd, London N1
Price: £19.99

Reviews

Our team of highly-trained playtesters checks out the latest releases

Gunship

Microprose, the masters of simulation software has released Gunship, its high-flying combat helicopter simulator, with an audio tape that gives you a personal flying lesson from Major "Wild" Bill Stealey himself. (See the last Commodore Disk User for an interview with Wild Bill).

The Gunship you'll be flying is an Apache AH-64 attack helicopter that's armed with cannons for taking out close-range targets; rockets for soft targets such as gun emplacements; Hellfire missiles to take out tanks and bunkers; and Sidewinder missiles to trash enemy Hind helicopters.

You'll begin your flying career on the training fields of the USA until you get the feel of the Apache and devise your own combat tactics. Then you're posted to one of the world's war zones, probably Southeast Asia at first, and later, the tougher regions of the Middle East and Western Europe.

To succeed as a combat pilot you will have to learn the best ways to attack the enemy, using terrain to cover you from enemy fire until you're ready to strike. It's also important to know the strengths and limitations of your weapon systems. If you complete your missions you'll soon rise through the ranks and have medals heaped upon you. Fail and you'll end up in a smouldering heap.

Gunship is one of the all-time classic combat games. It's easy to learn, particularly with the flying lesson tape, but then gives you challenge after challenge as you tackle over

100 missions.

Finally, the audio tape also includes a prize that you can send off and claim. It will probably be a poster or mug but it just might be a computer, disk drive or a trip to the States.

Tony Hetherington

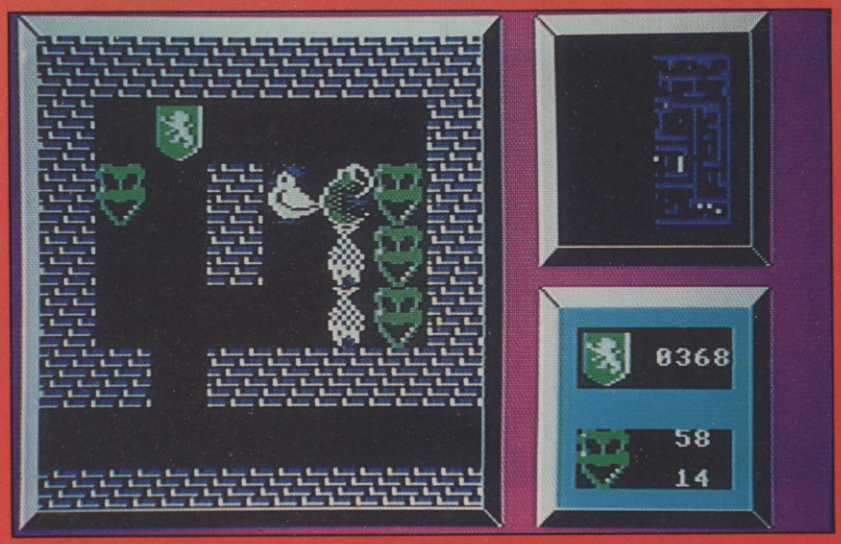
AT A GLANCE

Name: Gunship
Supplier: Microprose, 2 Market Place, Tetbury, Glous., GL8 8DA. TEL: 0666 54326
Price: £19.95
Graphics: Good
Sound: whoosh, bang, whirr
Playability: Great
Addictiveness: You'll be flying into the early hours

Xor

I'm going to try and review Xor without loading it in again. I know if I see the title screen I'll be hooked again and will stare at the screen until I can solve another of the 15 mind-mangling mazes. Last night, I loaded it in for a few minutes and didn't finish till after 2am!

I'm not getting any sleep and I'm beginning to have some weird dreams. It all started on the BBC micro but when it drove all the users mad it spread to the C64. The problem is that it seems so simple. There are 15 mazes that contain masks that you must collect before you can go through a door to complete the level. In your way, however, there are chickens that always move sideways and fish that always fall down. If you get caught by one of these then your game is effectively over. You actually have two shields that are in play simultaneously but



▶ ▶ ▶

are usually trapped in different parts of the maze. You can even find the four pieces of the map of the maze as well as forcefields that restrict your movements, bombs that can blow a way through to a new part of the maze and transporters.

There isn't even a time limit to worry about so you can stare at the screen for hours. You can replay a game too, to show exactly what happened to make sure it doesn't happen again.

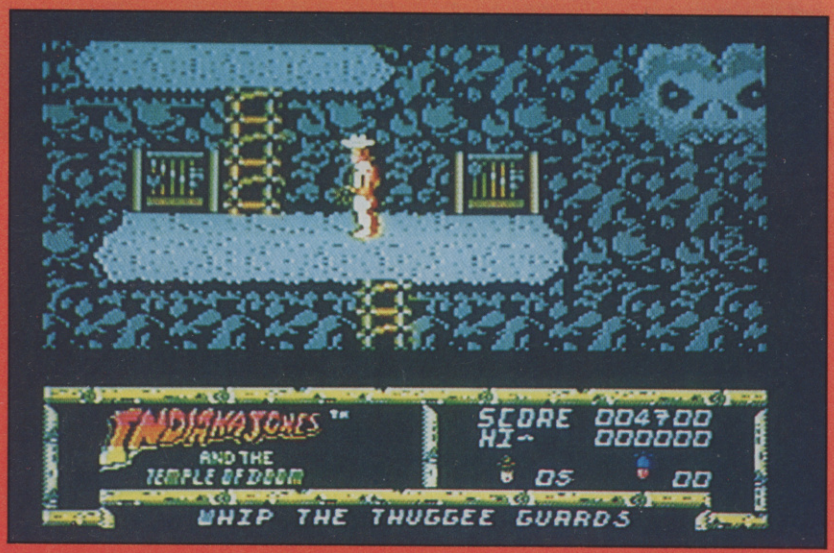
The problem is that this is all so addictive. It will drive you back again and again until you work out how to get the mask without letting the chicken charge across the screen that will then detonate the bomb that will blow you up! When you finally figure out that one there are even more devious puzzles lurking on the disk.

If you manage to solve all 15 levels and solve the anagram that you get on completion of a level you'll get a badge and certificate to prove it. If you don't then you'll probably be certified!

Tony Hetherington

AT A GLANCE

Name: Xor
Supplier: Logotron, Dales Brewery, Gwydir Street, Cambridge CB1 2LJ Tel: 0223 323656
Price £19.95
Graphics: Functional
Sound: N/A
Playability: Puzzling
Addictiveness: You have been warned!



Indiana Jones and the Temple of Doom

Indiana Jones bursts onto the C64 screen in the conversion of the coin-op game of the film. This game is split into three parts. Complete one and you survive to attempt the next one.

In Part one you must free the children that are trapped in cages and guarded by the evil Thuggee soldiers. Armed only with your trusty whip you leap around the snakes and ladders of the cavern, cutting down guards as you go, and freeing the kids with a single whip. When you've freed them all you can leave the caverns by climbing into a mine cart and so to Part two.

This is the shortest part of the game, as it involves simple trial and error to find the correct route through the mines. Get it wrong and either the pursuing guards will get you, or you'll come off the rails. After only a few failures you'll be on course and coast through into the next stage.

Part three takes Indy into the temple itself where you must dodge yet more Thuggee guards, swing across a fiery pit, grab a magical stone and dive through a door which leads back into the caverns full of more caged kids.

The game is a good conversion (although the music is awful) of an arcade game that needs more screens, and a lot more action.

Andrew Boyle

AT A GLANCE

Name: Indiana Jones and the Temple of Doom
Supplier: US Gold, 2/3 Holford Way, Holford, Birmingham B6 7AX. Tel: 021-356 3388
Price: £14.99
Graphics: poor
Sound: dreadful
Playability: easy
Addictiveness: You'll soon move on to something better

Earth Orbit Stations

Space, the final frontier. In E.O.S. you are in charge of the next 50 years of the space program. Your mission depends on the scenario you've chosen, but could be a race to build the first space station in Earth orbit or a search for alien life.

Whatever the mission, your first priority is to build a station that will make you enough money to continue with the game. Your first station will consist of a command module, logistics plant, life support, gym and galley units and a power plant section plus one or more of the various commercial or research installations. This basic system will produce life, galley and power points that are needed to drive units such as shuttleports, space telescopes, agricultural, forestry,

pharmaceutical, computer and chemical labs, communications satellites and energy platforms.

Each module has a basic cost and a running cost and must be fitted onto your growing space station via a spare connector. If you're running short of spare connectors you can buy a short or long extension for your station but by now you'll probably need more life, power and galley modules to service it.

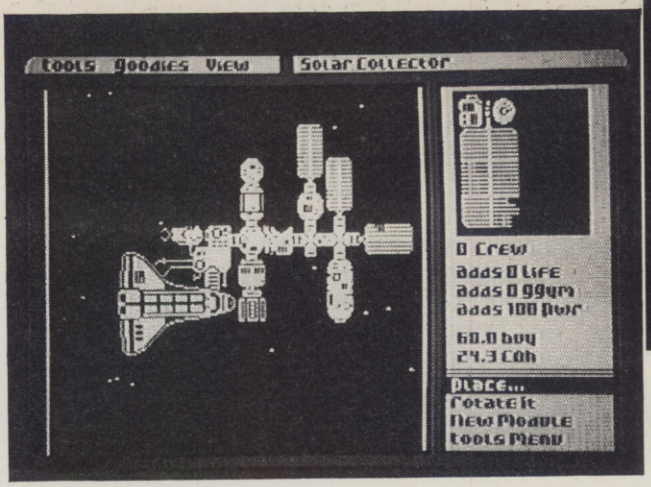
Each turn, you and your human and computer opponents (up to 3 of them) make or lose money depending on the fluctuating markets and so you get a chance to adjust the prices that you charge for the goods created by your shuttleport or chemical lab and use the revenue to build more modules, borrow money from the galactic bank, check the latest headlines in the EOS for news or pay off part of your growing debt.

At some time in the game you will want to swap some of the modules from commerce to research to try for that important breakthrough in technology that could win you the game. Unfortunately, research costs money so you have to time this move well or your space program will crumble around you.

In an advanced game you can send off probes to explore and plunder new worlds, win sponsorship deals to pay for your research, build cargo liners to reach the stars and build new space colonies to mine for ores.

EOS is a unique mixture of strategy, financial wizardry and exploration that takes a while to learn but then hooks you for good.

Andrew Boyle



AT A GLANCE

Name: Earth Orbit Stations
Supplier: Electronic Arts, Langley Business Centre, 11-49 Station Road, Langley, Nr Shrough, Berks SL3 7YN. **Tel:** (0753) 49442
Price: £12.95
Graphics: modular
Sound: none
Playability: strategic
Addictiveness: I'll have just one more game

Chuck Yeager's Advanced Flight Trainer

Have you got what it takes to become a test pilot? Here's your chance to find out, as you can climb into any of 14 aircraft and take them to their limits.

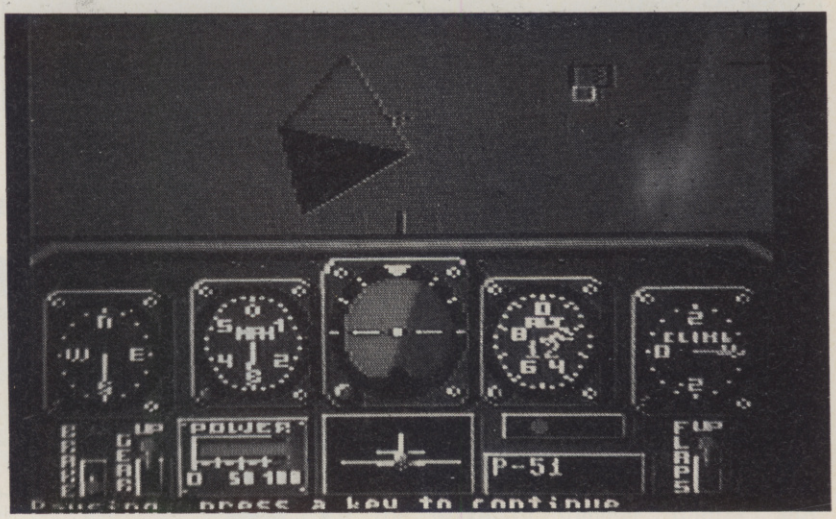
Before you go solo you should take a flying lesson from the man himself by following the on-screen prompts that tell you when to adjust flaps and throttles, and also an on-screen cursor that you can follow to practice joystick moves. Once you've learned how to take off, climb, dive and land you can practise some aerobatic moves such as aileron rolls and Cuban 8's.

When you think you've earned your wings you can climb into one of the aircraft waiting in the hangar and "see what they can do". These planes range from the Sopwith Camel and Spitfire to the Lockheed SR-71 and McDonnell Douglas F-18. Each one has its own set of controls, instrument panel, abilities and limitations. Your job as a test pilot is to find out what the plane can't do and survive to tell the tale - so you must always expect the unexpected.

If that's not enough you can risk life and limb in a daredevil race with General Yeager through gates, slaloms and even skyscrapers!

14 flight simulators for the price of one.

Graham Wiseman

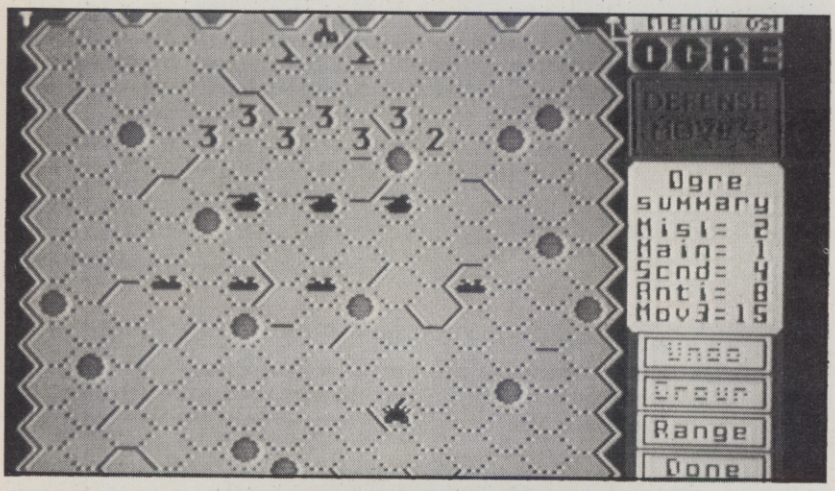


AT A GLANCE

Name: Chuck Yeager's Advanced Flight Trainer
Supplier: Electronic Arts, Langley Business Centre, 11-49 Station Rd., Langley, Nr Slough, Berks SL3 8YN. TEL: 0753 49444
Price: £16.95
Graphics: Ace
Sound: hhmmmm
Playability: easy
Addictiveness: High flyer

OGRE

Ogre is the computer version of the board game which has become something of a cult. On the nuclear battle-fields of tomorrow, infantry are clad in powered armour, giant howitzers hurl nuclear shells over staggering distances and the main battle tanks combine high speed with enormous power. The most fearsome, however, is the Ogre. This half-living machine can take on an entire army with its massive array of missiles, guns and anti-personnel mines. Its target is the command post that controls the defending forces. You must protect this by stopping the relentless killing machine.



When the game has loaded you are greeted by pulldown menus and "clicking" game controls as you choose your weapons for the impending duel. The mixture of tanks, guns and troops you choose helps to form your strategy. Will you opt for a static line of howitzers, in the hope that you blow the Ogre to bits before it reaches you, or will you opt for weaker units that can move out of trouble (at least some of the time)? You can even arm yourself entirely with GEVs, the hovercraft of the 21st century, that can move in, attack and retreat all in one turn.

Whatever your choice you are left with the same powerful, relentless opponent and the dilemma whether to attack its weapons or try to slow it down first by hitting its treads. As with all the best games there isn't one "correct" strategy that works all the time. To add to your problems once you've finally defeated the Mark III version of the Ogre there's the bigger Mark V waiting in the wings. This monster has more than twice the firepower of the Mark III and has been known to march down a crowded battlefield and destroy everything in its path without even getting scratched!

An army pitted against a single piece makes an interesting conflict and one that runs surprisingly close! Have you got what it takes to stop the Ogre?

Tony Hetherington

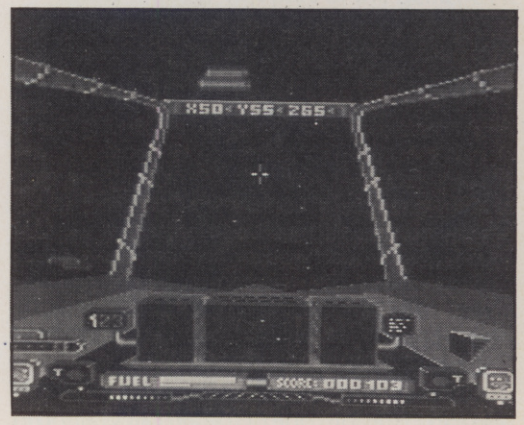
AT A GLANCE

Name: Ogre.
Supplier: Origins/Microprose, 2 Market Place, Tetbury, Glous GL8 8DA. **Tel:** 0666 54326.
Price: £12.95
Graphics: Strategic
Sound: whizz, bang
Playability: challenging
Addictiveness: I'll stop the Ogre next game...

Starfox

In the unofficial sequel to Skyfox you now sit in the cockpit of the vessel Starfox. The Starfox is in the middle of the Rubicon cube that has been set up to protect the eight planets of the Hysturian system from alien attack. Although the cube is still intact it has been breached and now you must destroy the invading waves of aliens.

Your Starfox is equipped with a standard-issue laser, turbo-charged stardrive and enough fuel to take you between planets. However, you will soon be swamped by invading aliens that attack in waves.



To progress from one system to the next you must complete the tasks set for you when you visit the system's planet. These won't be easy as the task for level one is to destroy 60 aliens!.

Luckily, there's help at hand from the planets, where you can add more powerful weapons and, from fuel-ships, top up your fuel.

Starfox lacks the pace and excitement of Skyfox as the aliens rapidly become repetitive and easy to hit. To make things even easier they don't even fire back!

Andrew Boyle

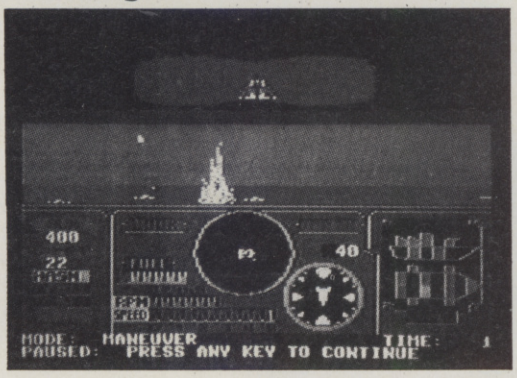
AT A GLANCE

Name: Starfox
Supplier: Reaktor (Ariolasoft), 9 Disraeli Rd., Putney, London SW15 2DR Tel: 01-785 4285
Price: £12.99
Graphics: poor
Sound: poor
Playability: dull
Addictiveness: The game takes a long time to get nowhere

Short but sweet

Games on disk have a long shelf-life. Here are some of our favourite products, which, although not new releases, will still be found in the shops.

PHM Pegasus



Action-packed naval warfare game set, topically, in the Gulf, which requires discrimination, not just rapid fire. Not at all easy since all decisions must be made at top speed. It'll take you a few missions to perfect your tactics and stay the distance. A good game that just falls short of great. **TH**

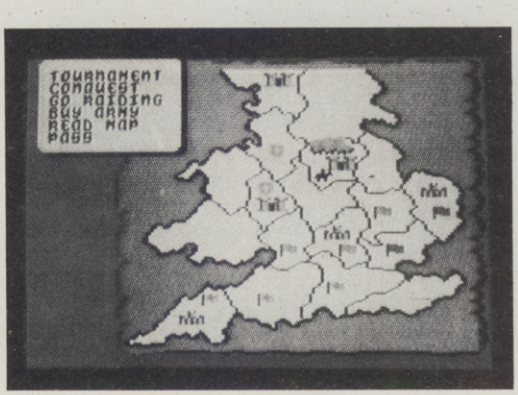
Price: £14.95
Supplier: Electronic Arts. **Tel:** (0753) 49442

The Guild of Thieves

The second adventure release from Magnetic Scrolls, following on from the very successful Pawn. The language parser is far and away the best currently available and the graphics are large and detailed enough to add considerably to the atmosphere of the game. Well worth robbing the piggy bank for. Recommended. **GH**

Price: £19.95
Supplier: Rainbird/Magnetic Scrolls. **Tel:** 01-240 8838

Defender of the Crown



An excellent conversion of the original game This is a fine medieval strategy war game, with strong arcade elements, that pits you against two other Saxon lords and three Norman usurpers in an effort to gain the throne of Merry England. Features some great graphics turbo-loaded in from disk.

TH

Price: £14.95
Supplier: Mirrorsoft. **Tel:** 01-377 4645

Computer Scrabble

Surprisingly successful version of the perennial board game. The main advantage is that you can play any time and sharpen up your skills without having to persuade a human to join in. The game has an impressive vocabulary of some 20,000 words, many of them quite obscure. Although I'd only use this if there was no-one else around to give me a reasonable game, I was pleasantly surprised by the standard of the challenge it set. **GH**

Price: £15.95
Supplier: Leisure Genius/Virgin Games. **Tel:** 01-727 8070

Stationfall

Follow-up to Infocom's likeable Planetfall, this game invites you to solve the mystery of a deserted space station. Fans of Floyd the robot will welcome his return. The main flaw is that Infocom's parser is beginning to seem a little dated. Apart from that, the story is beautifully put together. Devotees of SF and particularly Planetfall will want to rush out and buy this one. **GH**

Price: £24.99
Supplier: Activision/Infocom. **Tel:** 01-431 1101

Comics

Golly Batman, it's a computer comic! Comics from Accolade not only lets you read the story, but you can actually take part in it as well. The story changes every time you play depending on the choices you make. As Steve Keene, Private Spy, you will have to watch your dialogue - wisecracks may lead to termination with extreme prejudice, and there are plenty of other ways to die. The game is huge - six sides of disk, and contains within it eight separate arcade games. Comics is an excellent idea well-presented, but I have doubts centred largely around the price tag, which I feel is high even for three disks. **GH**

Price: £29.95
Supplier: Accolade/US Gold. **Tel:** 021-356 3388

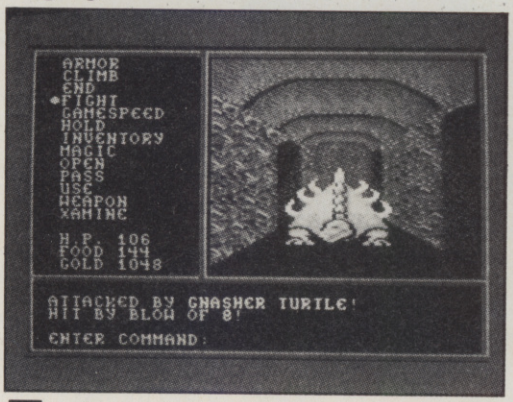
California Games

In the wake of Summer, Winter, and World Games comes Epyx's latest-thrills and spills from the Sunshine State. Just when I thought the Epyx Games series had run its course, US Gold pulls a stunt like this on me! CG features such competitive Californiana as frisbee throwing, skateboarding, and, of course, surfing. Six competitions feature in all and up to eight competitors can participate. For my money California Games is the best yet, and that's really saying something. Recommended if you like the sporting life. **ED**

Price: £14.99
Supplier: Epyx/US Gold. **Tel:** 021-356 3388

▶ ▶ ▶ ▶ ▶ ▶ ▶

Legacy of Ancients

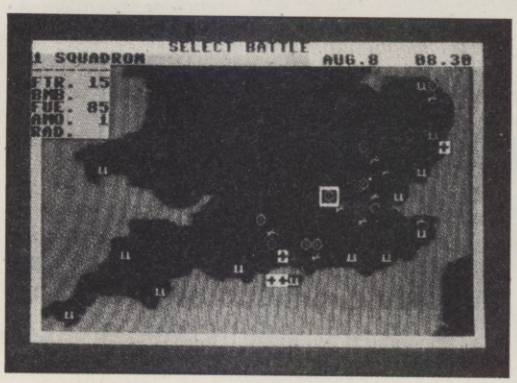


Entirely menu-driven role-playing game, which, unlike many others in this genre, is very easy to get into - the plot more or less points you in the right direction. The game, which contains some excellent monster graphics, is no pushover and I would estimate that it will take 40 to 50 hours gameplay to solve. Highly recommended to both newcomers and fans of this type of game. **GH**

Price: £16.95

Supplier: Electronic Arts. **Tel:** (0753) 49442

Conflicts 1



A treat for wargame fans, this is a compilation of three of PSS's best-known games. The games are about as different in subject matter as it is possible to get - Battle of Britain, Falklands 82 and Theatre Europe. The latter brought fame and notoriety to PSS with its nuclear-threshold encounter between NATO and Warsaw Pact forces. All three games are very well presented and easy to control. they lack the complexity of some fully-blown wargames, but can certainly be highly recommended to beginners and newcomers of this fascinating art. **GH**

Price: £17.95

Supplier: PSS. **Tel:** (0203) 667556

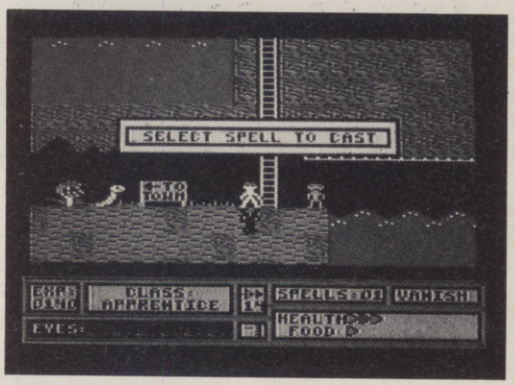
Lurking Horror

Horror is the name of the game in this latest adventure from Infocom. You play an American student exploring the murky depths beneath your alma mater. A tame hacker directs you to the Alchemy Department. Open the trapdoor and the nightmare is just about to begin. This is a typical Infocom game - which means excellent. Superbly packaged, with an adequate parser, Lurking Horror is a game that demands to be played after midnight with all the lights turned out. Recommended. **GH**

Price: £24.99

Supplier: Infocom/Activision. **Tel:** 01-431 1101

Black Magic



Black Magic is a graphic role-playing game. The once lush green fields of the once-peaceful village of Marigold are now misty cemeteries where the bodies of Zargrim the Evil Warlock's victims are buried. Not unnaturally, you as a concerned citizen set out to kill the mighty warlock, and so the game goes. The graphics are a little dodgy and sometimes dull, but the game is brill, with nice spot effects and a huge playing area. I haven't stopped playing it yet. **KR**

Price: £14.99

Supplier: US Gold. **Tel:** 021-536 3388

The Dungeon

This is the second scenario in Datasoft's Alternate Reality role-playing series, following on from The City. The story is that you are captured by an alien spacecraft and find yourself in a room with only one exit that leads to an alternate reality. Making your way through this reality, using magic to survive and gain treasure is the main problem. The Dungeon oozes atmosphere and must be one of the best role-playing games on the market today. If the next five modules in this series are anywhere near as good, then fans of this type of game have some treats in store. **GH**

Price: £19.95

Supplier: Datasoft/US Gold. **Tel:** 021-356 3388

Strategic Simulations

SSI is a long-established US software House which has firmly captured the American strategy and role-playing game market. Can it repeat the trick in the UK?

By Tony Hetherington

Strategic Simulations Inc is one of the biggest American software houses. Undoubtedly, it leads the field in strategy games with classics such as Colonial Conquest, Phantasie I and II, Gemstone Warrior and, recently, B24.

An SSI game has its own unique style. The game disk is supplied in a presentation box with a full instruction manual. The games themselves have graphics that you certainly wouldn't write home about, with stick men wandering jerkily round a map, but the game mechanics have a depth that will challenge you for months. For example, one of the latest releases, Realms of Darkness, has an estimated playing time of over 150 hours!

In the following pages we'll look at the pick of the new SSI imports (via US Gold) and the plans in progress to bring Dungeons and Dragons to the small screen.

Wizards

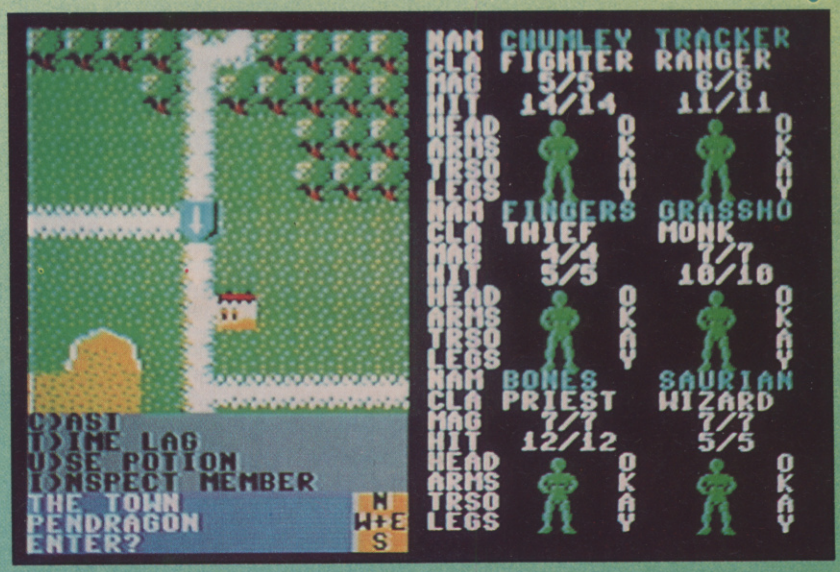
SSI has rapidly achieved a reputation for fantasy role-playing games with titles such as Questron, Phantasie and, my favourite, the Shard of Spring. Now these have been joined by Phantasie III, Gemstone Healer, Wizard's Crown and Realms of Darkness.

Future plans, however, are grabbing the headlines. SSI is signing a five-year deal with TSR to produce games based on the Advanced Dungeons and Dragon system. SSI plan to release "at least ten" role-playing games with each one based on a region of the D&D campaign set Forgotten Realms.

The Forgotten Realms are whole new lands packed with towns, cities, dungeons, monsters, magic, mystery and dragons. They were originally created for AD&D players to explore but next year SSI will open the Realms to computer adventurers. Until then you can sharpen your sword and test your mettle on any of the following from the masters of mystery.

Phantasie III.

Subtitled, The Wrath of Nikademus, Phantasie III is the third part of the Phantasie trilogy in which you meet the Dark Lord himself in a final conflict as he sets out to conquer the world!



Phantasie III

Players of Phantasie I and II will recognise the game system. This time it's set in a massive wilderness full of towns and dungeons. You begin the game in a town by creating your party of heroes. This can be a lot of fun as you select your characters from a selection of the standard adventuring types (humans, dwarves, elves etc) as well as some very unusual ones such as an orc or a troll - both make excellent fighters. You then allocate them to a specific character class (fighter, thief, priest, ranger, wizard and so on), take them to the armoury to buy them shields, armour and weapons and send them out into the big and very cruel world.

Experience is vital as if you gain enough and get to a town alive you may persuade the local guild to help you to gain a level. If a character gains a level they not only gain some hit points but also get three attempts to improve their abilities such as their skill at hitting things and stopping things hitting them, picking locks, swimming, firing a bow, detecting and disarming traps and other useful skills that might just save your skin in a tight situation.

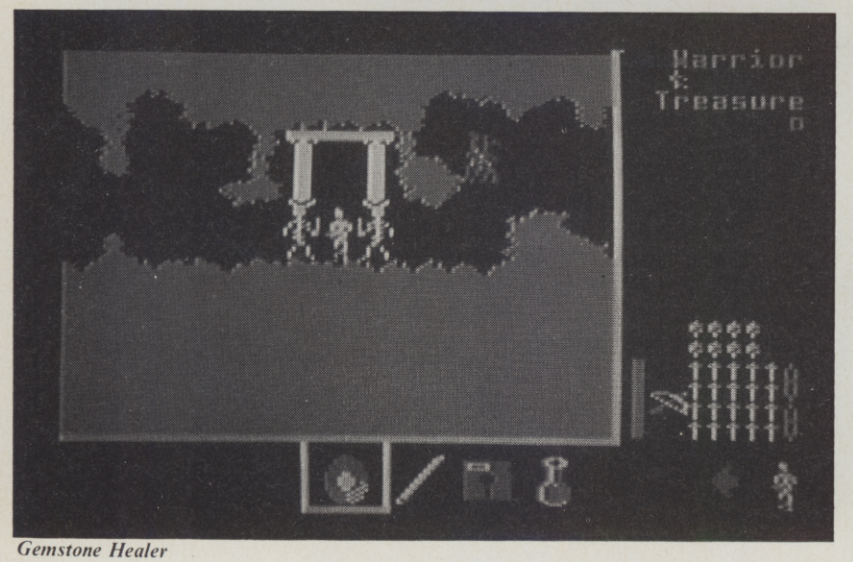
The game actions such as fighting, exploring, moving, resting and spell-casting are all controlled from single-key commands. This makes the game incredibly easy to play and a must for all adventurers. Phantasie I and II players can even give themselves a head start by converting existing heroes to the new Phantasie III format.

Gemstone Healer

In Gemstone Warrior, SSI's version of an arcade game, the player delves deep into the depths of The Underworld and rescues the five pieces of the broken Gemstone. By the time of Gemstone Healer, the world is safe, for a while at least, so you try to restore the Gemstone and the power it gave man to live in peace, free from the continuous onslaught of demons' minions.

Gemstone Healer is played in a random dungeon that's created from the name that you give it. Novice Gemstone Healers start by exploring a dungeon created by the name Gemstone Healer.

In the dungeon you must live by your sword, crossbow or from your limited supply of firebolts. These you must use wisely to protect you from the evils that lurk within as the dungeon caverns crawl with skeletons, ghosts, exploding hydrogen plants, disease-carrying shamblers, giant amoebae and the demons themselves.



Gemstone Healer

If you defeat these horrors then you may find some gold, a quiver of arrow or some fire bolts but for real treasures you should search chests and coffins to look for magic items.

These magic items will make or break your quest, as you can find a dagger that displays hidden doors, rings that make you invisible, goblets to heal you, sceptres for protection, and scrolls that contain hints for your quest. You may also find some of the 25 healing tools that you must use to repair the Gemstone.

Gemstone Healer moves at a pace quite unlike the other SSI games and will test your reactions as well as your skill and strategy as only those will save you when you walk into a cavern packed with demons.

Wizard's Crown

Your quest in Wizard's Crown is perilous indeed as you must retrieve the Crown of the Emperor from the dungeon, lair of the evil wizard Tarmon. As you begin the quest with your party of eight heroes you only have basic skills and equipment. These must be improved through combat with the thieves and thugs that lurk in the city streets.

When you have thrashed a few thugs you can go to the local swordwielders's club and improve your character by swapping experience for an increase in some of your skills. For example, fighter should improve his combat awareness and his skill in his chosen weapons, a sorcerer increases his spell power and a priest improves his abilities to pray for healing and turning away the undead.

Wizard's Crown isn't just another SSI fantasy role-playing game as it adds tactical combat to the action. Whenever you meet an enemy you can either opt for quick, or full, combat. Quick combat is over in seconds and usually leaves you bleeding but if you prefer not to go for this invisible hand-of-death style of fighting you can opt for a full 20 minute battle where you decide every action for your characters.

Realms of Darkness

Realms of Darkness combines the SSI classic form of role-playing game with a standard graphics adventure. You can swap between modes depending on whether you have a battle to fight or a puzzle to solve. It is also arguably SSI's biggest adventure and it is claimed that it will take you over 150 hours to solve.

As you open the box, you can tell you're in for something special as you find not only the two game disks, and an instruction book, but also a hint book as well as maps and guides and a pouch that you will find later in the game.

To complete the Realms of Darkness you will have to fullfil seven different quests which will lead you through a massive wilderness packed with cities and 30 levels of dungeons.

The Realms also have the usual single-key command format for a more user-friendly system of joystick-selected menus. It's nice that something's friendly in a world packed with perils. As soon as you hit a problem that can't be solved by brute force you can easily switch into adventure mode, talk to people you meet, and try everything you can think of to solve the puzzle you face. if all else fails, it's comforting to know that the answer may lie somewhere in the hint book.

Warlords

SSI catalogues bulge with battles that can be fought between you and your C64, or with another human, leaving the computer to do all the number-crunching that takes so much time in board wargaming. Now you can take charge of your troops and concentrate on the strategy and tactics while the computer does all the paperwork.

Two new SSI wargames show the variety of games on offer that range from a full-blooded simulation of the American Civil War battle of Gettysburg, fought between 160,000 troops, and the man-to-man World War II street fighting of Computer Ambush.

Computer Ambush

The scene is a half-ruined town in the middle of World War II France. You are Sergeant J.C. "Buck" Padooka and you command a squad of ten US soldiers. Somewhere in the town are 10 Germans and there just isn't room in the town for the both of you.

The action takes place in a series of turns that you can set to any number of time units. You issue orders to each of your squad telling them to ready weapons, run, walk, creep or crawl to position and then fire at set targets or at anything that crosses their line of sight. Each of these actions takes time which allows the computer to plot the turn and the results of any combat. This flexible system allows you to speed up or slow down the pace of the game as required while giving you total control of your men.

The key to success lies in knowing what your men can and can't do and then using the right men for the right job. At the beginning of the game you don't know where the Germans are so it's best to send your good spotters to find them, while your other men cover expert shots while the others cover surrounding streets to look out for any ambushes.

As the battle continues and bullets and grenades begin to fly your men will take hits that will add to their wounds total. As the injuries mount up they'll be able to do less and less and won't be too eager to follow your orders.

The computer opponent will give you a run for your money, although it can never replace the unpredictability of a human adversary, so the box contains the materials for a two-player game which include two plastic-covered maps of the towns and grease-proof pencils so you can plot and plan your moves while your opponent is at the computer.

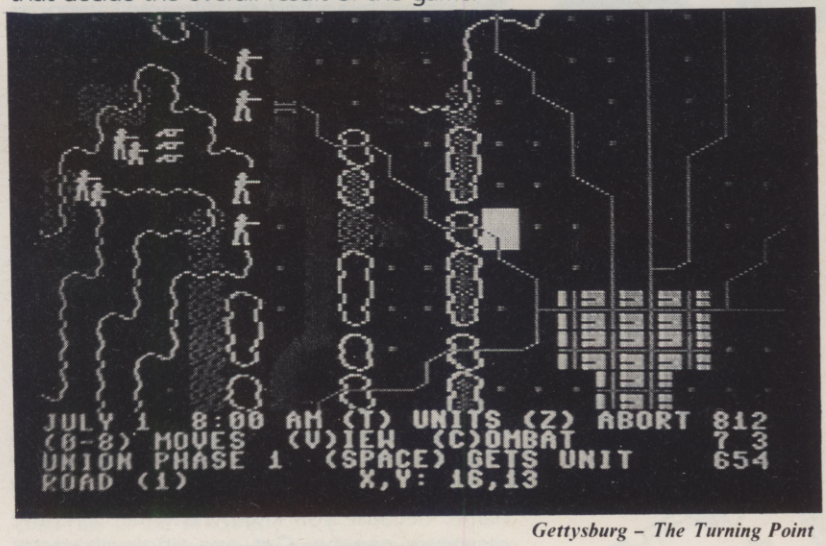
Gettysburg - The Turning Point

Gettysburg is in complete contrast to Computer Ambush as the historic battle was fought between 90,000 Union soldiers and 70,000 Confederates, claiming over 50,000 casualties.

The real battle began not as a set-piece conflict but from a skirmish between Confederate Infantry looking for shoes ad Cavalry from Meade's Union army that were trailing Lee's Confederates.

The game simulates the way this skirmish grew as the opposing commanders have only a handful of units at the beginning of the game which are joined by reinforcements as the battle develops. These reinforcements arrive at up to four hours before or after their historical time to simulate the uncertainties of war and to keep the commanders guessing.

As well as beating the opposing troops into a pulp you must try and take key locations. These locations not only provide a focal point for the battle but also add to the victory points that decide the overall result of the game.



Gettysburg – The Turning Point

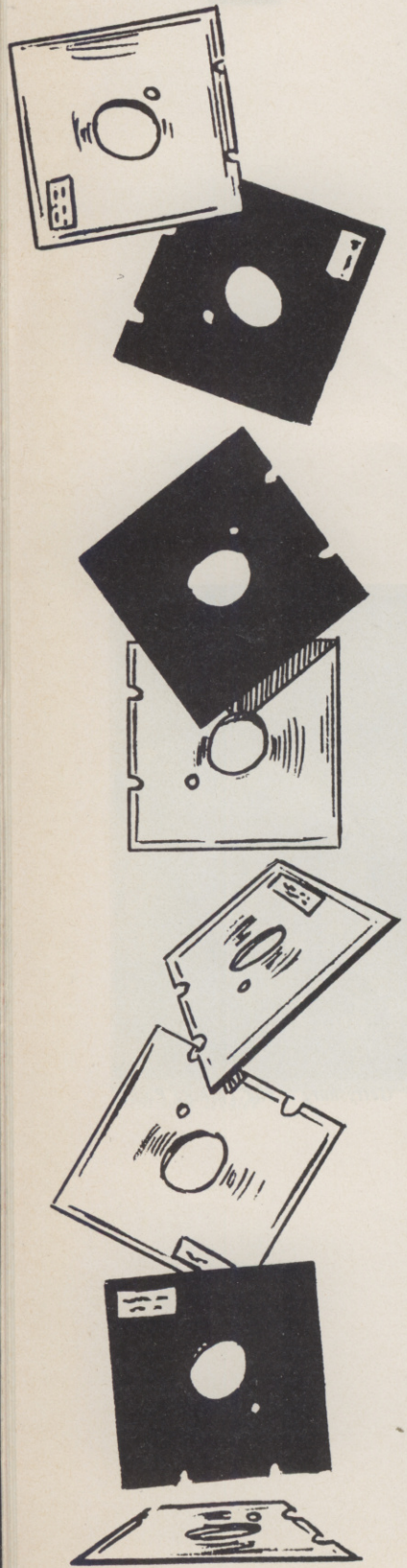
Gettysburg - The Turning Point is an impressive historical simulation. Despite the massive numbers of troops on either side combat is resolved down to the nearest man. Indeed at the end of each game hour you receive a report of the numbers of troops reported dead, injured or missing. Each unit has a number of ammunition points that decides its fire power. Fatigue points determine its will to fight and the unit even possesses a Commander who forms part of the command structure that passes your orders down to the men.

As with the other SSI games, only a disk drive makes possible the depth and complexity that these strategic struggles demand.

Disk librarian

In the last issue of "Disk User" we gave you a utility to sort out your disk directories. Now we provide you with a versatile program that helps you to catalogue all your disks.

By Burghard-Henry Lehmann



The more disks you've got, the more urgently you need some kind of library system that lets you find a program or file quickly and without too much fuss. Having to load one directory after the other, every time you are looking for something, can become very frustrating and time-consuming.

This is especially true if you use your computer for 'useful' things, such as wordprocessing, or if you do a lot of programming, which means that you will have an ever growing collection of utility programs and library routines. Here the problem arises that after a time you might not even be able to remember what a particular program or file is called.

Disk Librarian allows you to build up a disk filing system which suits your particular needs. This is done by sorting your files into categories and subcategories which you can name yourself.

Let's say you are into wordprocessing. This means that after a time you will have collected a large number of documents on disk. If you sort these documents alphabetically you will find it very difficult after a time to make head or tail out of your list. After all, what does a filename on its own mean? Unless you develop a complicated system of abbreviations which you cram into the 16 available bytes for each filename, like "1 to par 10.8.87", meaning: "letter to parents written on the 10.8.87", a filename by itself will tell you very little.

The trouble with using lots of abbreviations is that, when you want to load the file, it is very awkward to have to type in such a coded name, because you know how merciless the computer can be. Get one single character wrong and you will be presented with the dreaded "File not found" message.

On the whole it is much more convenient to give files a "readable" name which you can type in quickly without making mistakes. But this limits the amount of information you can give with each filename.

Disk Librarian helps you to overcome this problem by sorting your files into categories and subcategories. To return to our example above, you could initiate a category called "Documents" and a subcategory called "Letters". This means that you could call the textfile itself "Parent 10.8.87", which is much easier to type in. Or - if you write lots of letters - you could even initiate a subcategory called "Letters August 87" (Disk Librarian allows you to give categories and subcategories names up to 24 characters in length!) which would make the filename itself even more convenient.

How Disk Librarian is Organized

Disk Librarian consists of three major parts:

Part 1 allows you to create and update your disk library by loading the directories of your disks into the computer, deciding which files you want to include in the library and naming the categories and subcategories you want to sort them under.

Part 2 lets you list the files created by 'Disk Librarian' on screen,

Part 3 is entirely reserved for getting a hardcopy of your library cotents, formatted in a way which suits you and your printer.

When you start the program off, you are presented with an initial menu which allows you to choose which main part you require. The function keys are reserved for this purpose, and later on you can use them also to switch from one of the three parts to another.

Starting Your Disk Library

Disk Librarian creates two major 'superfiles', each one consisting of several sequential files: The first superfile holds all the disk names, disk id's and all selected files from each disk in the order in which you have build up your library.

The second superfile too consists of several smaller files, each containing the files collected under a particular category or subcategory. In future I will call this the "Category File", while I will call the former file the "Chronological File" because it builds up chronologically as you expand your disk library by adding new disks and new files.

It is a good idea to prepare two newly-formatted disks, one for each of the above two superfiles. This ensures that there will be no

confusion between the files Disk Librarian creates and other files and also ensures that there will be enough disk space.

To format a disk use the disk commands option in Part 1 of Disk Librarian. Simply enter "@" and then a line like this: "N:Chronolg. File,xx xx"("xx xx" is the disk id which you can omit if you format a disk which has already been formatted before).

Furthermore there is a third file created by Disk Librarian: The "Master File". This file holds all the names and id numbers of the disks included in the library and the names and numbers of all the categories and subcategories initiated by you.

The Master File serves as a sort of housekeeping file which is used by all the major three parts of the program as an important source of information. It is therefore of vital importance to save this file regularly. The program will request you to do this at several points in the operation.

Whenever you update or change your library use first the "D" option in part 1 of the program, which allows you to enter the present date. This date, together with the first three digits of the disk id, will make up the file name of the sequential file within the Chronological File and more importantly, tells you when you have last dealt with a particular disk.

Selecting Files

The first step in adding a new disk to your library is to load the disk directory by pressing "L" for "Load Directory".

F1 will allow you to return at any given time to the menu of part 1, while F7 allows you to return from the menu to the printout of the directory.

Next select the files which you want to incude in your disk library by moving the cursor to the file you want to select and pressing the spacebar. You can also select (or un-select) all the files of a directory by pressing "C" and then un-select the files you don't want by again moving the cursor to the particular file and pressing the spacebar. this is more convenient if you want to select most of the files on a disk.

The reason for actively selecting files for inclusion in the library is that you very rarely want to include all the files on a directory into the library. As you know, many programs consist of a loader module and several files which are loaded by the loader. It wouldn't make much sense to include all those files into the library. This would only waste valuable space and wouldn't give you any useful information about the contents of your disk library. Instead, it makes much more sense to select only representative files from each directory.

Furthermore you might have already used a program like my utility Directory Designer (see the last issue of Commodore Disk User) to put separating lines and special titles into the directory. it wouldn't make much sense to include "ghost files" like this in the database created by Disk Librarian!

In the process of building up your disk you will often find that it might be a good idea to change a filename to make it even clearer what the file is all about. You can do this easily by using the disk command facility which you find will in part 1.

Type "@" to call the facility and then enter a line like this (you can do this from the directory printout): "R:New Name=Old Name" (see your disk drive manual for more information about how to use disk commands). This will change the name of the file on the disk and the filename in the directory listing on screen.

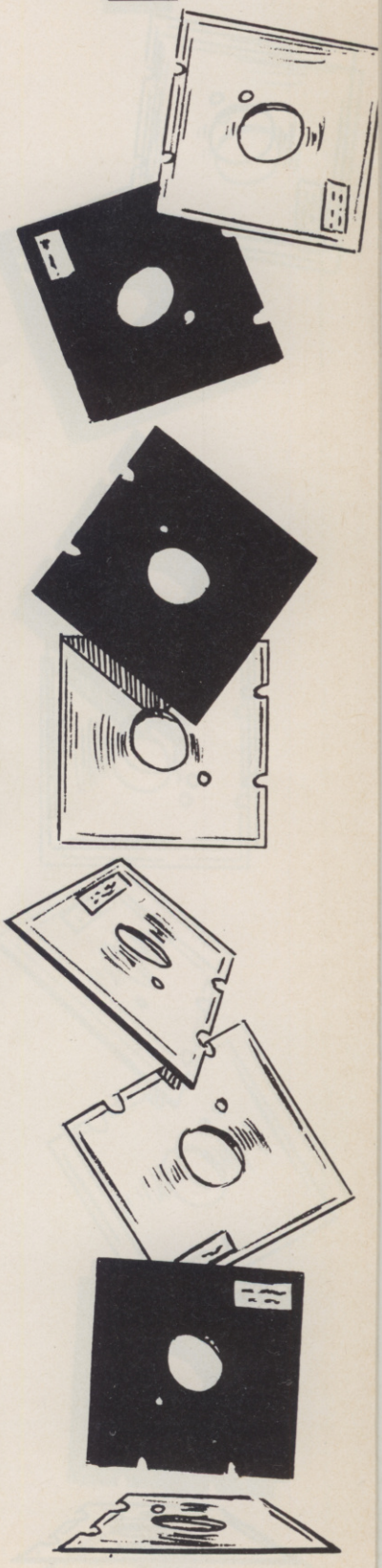
The Disk ID

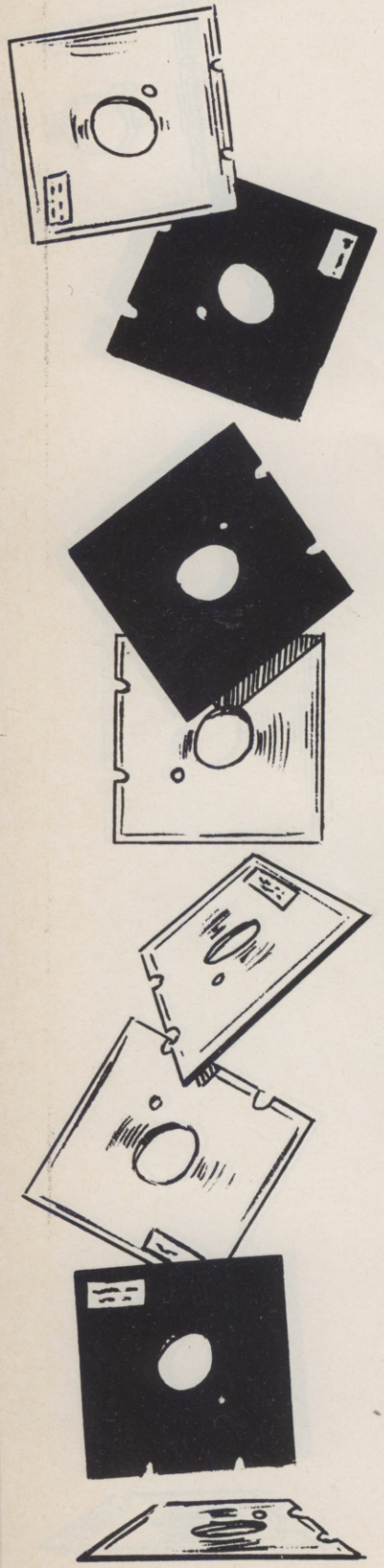
With Disk Librarian the disk id is of special relevance in that it is used to file a disk in the Chronological File and retrieve it from there again quickly. For this purpose the id of each disk has to be unique.

But Disk Librarian is only interested in the first three digits of each id number. The following two digits are ignored by the program. The reason for this is that the Chronological File is stored in the following way:

The selected files of five disks are stored in one sequential file. The name of each one of these sequential files consists of the first three id digits of each of the five disks filed strung together.

For id numbers you can use any combination of letters and numbers within the first three digits. In part 2 of the program there is a facility which gives you a list of all the disk names and ids used so far. With the help of this you can determine a unique disk id.





The Chronological File

The next step is to enter the files you have selected into the Chronological File. Do this by pressing option 1 of the main menu. The program will take care of all the details. If a new sequential file has to be opened it will automatically do this.

The next step is to set up the Categories File which is the second major file of Disk Librarian.

First you have to name the categories and subcategories you want. For this press Option 2 from the main menu of Part 1.

Now you have three options:

Firstly, you can create a brand new list of categories and subcategories by choosing Option 1. This applies, of course, whenever you start the system off from scratch.

Secondly, if you have already set up a list of categories and subcategories and have saved it on disk, you can load this file (Option 2).

Thirdly, if the file is already in the computer, you can reprint it by choosing Option 3.

Naming a category or subcategory is very simple. The computer prompts you with the number of the next category or subcategory and you type in the name you require.

In order to distinguish between categories and subcategories each category name is preceded by two numbers, separated by a full stop. First comes the number of the main category and then the number of the subcategory.

When you press Return you will be prompted with the number of the next subcategory. If you want another main category instead, simply press Return again and the number of the next main category will come up. Press F7 to terminate this process at any time.

After this you will have several options: You can return to the main menu of Part 1 by pressing F7 again. Or you can edit the categories already there by pressing "E" for "Edit Categories". Furthermore you can save the Category Name File you have created ("S" for "Save File").

Assigning Categories

You can assign the category or subcategory you want to the files of the current directory selected for inclusion in the library (Option "A" for Assign Category").

Now the first file you have selected will appear in the bottom part of the screen with next to it a flashing cursor. Type in the number of the category or subcategory you want this file to be assigned to. But remember, you always have to type in two numbers separated by a full stop. For example, "1.0" would mean the first main category, while "2.5" would mean the fifth subcategory of the second main category.

The Categories File

The Categories File is, like the Chronological File, really a collection of several files, each one consisting of the entries which have been collected under one category or subcategory. With other words, for each category and subcategory a separate file will eventually be created and each one of these files will be updated or changed as the library is updated or changed.

Again it's a good idea to use one separate disk for the Categories File so that the files of which it consists can't be confused with other files. The management of the files, that is, naming and initialising them, saving and loading them, etc., is done entirely by Disk Librarian. All you have to do is provide enough space on a disk, and the best way to do this is by using a separate disk for this purpose.

Option 3 of the main menu of part 1 enters the assigned files into the appropriate Categories File.

This completes the setting-up part of Disk Librarian. As a final step, before leaving Part 1, always save the Master File, because, as I've already pointed out, this file contains several bits of information which are important for the functioning of all the parts of Disk Librarian.

Getting a Hardcopy

The ultimate aim of Disk Librarian is of course to give you a well-formatted hard copy of the database which you have build up with the program.

Listing the Categories File

Option 3 of Part 2 allows you to choose a category or subcategory for listing and sorting.

The categories and subcategories which you have named will be listed on the screen in the same way as in Part 1 and a cursor will appear. Move this cursor up and down to select the category or subcategory you want listed.

If you select a main category all the subcategories belonging to this category will be listed too. There is only one limitation too. There is only one limitation here: If the buffer used by the program is full, only the files contained in the buffer can be listed. To get round this problem list a large category by listing its subcategories separately.

Each subcategory is treated by the program as a separate unit. If you keep this in mind when setting up your disk library you can prevent an overloaded buffer in Part 2 of Disk Librarian by splitting a large category into many subcategories. This makes sense from a logical point of view and helps Disk Librarian do its job.

The listing of the files contained in a category works in very much the same way as the listing of the Chronological File - a cursor appears which you can use to select a file and manipulate the listing process.

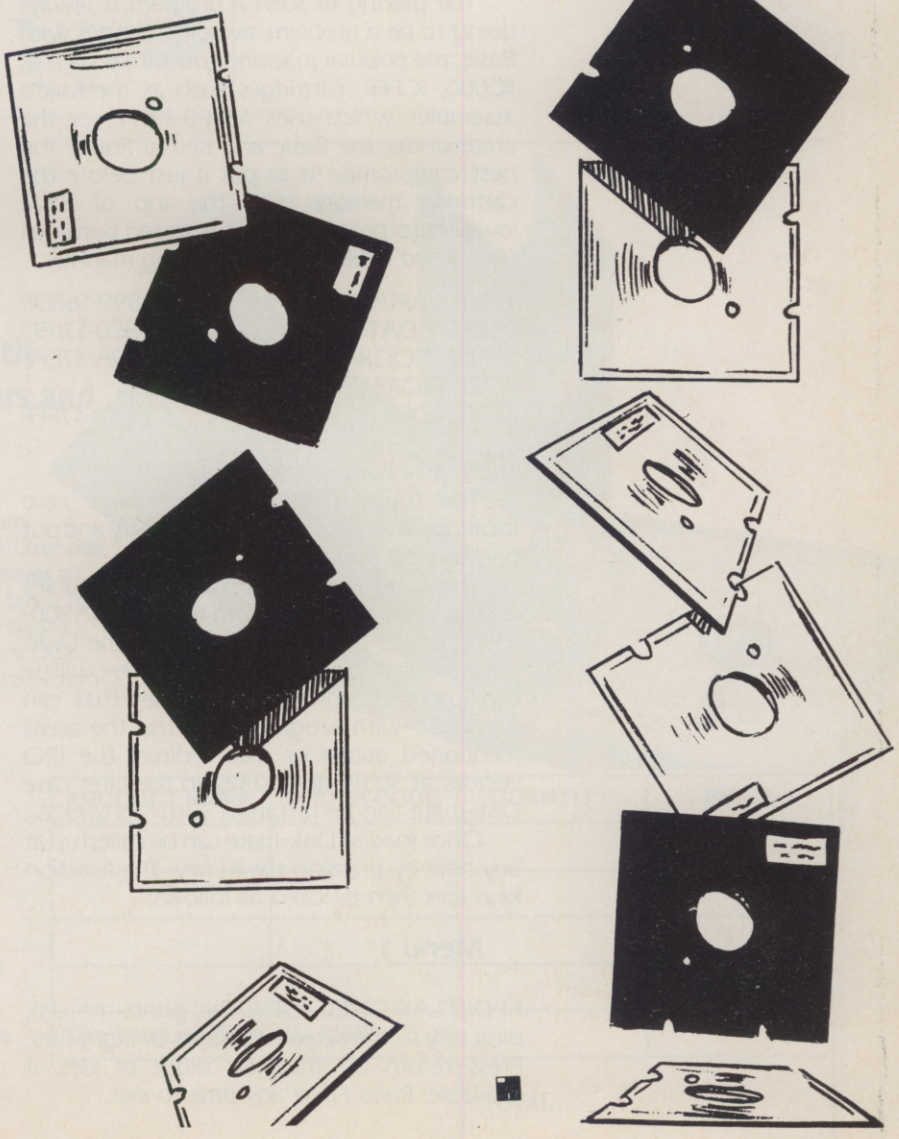
"D" deletes a file. But this is again only done in a buffer. You can undo any mistakes you should make by reloading the category. Only if you save the buffer with the "S" command will the change be installed on disk.

The same is true for the "A" option which allows you to sort the files of a category alphabetically. To return to the main menu of part 2 at any time press F7.

Listing the Chronological File

To enter the second part of Disk Librarian press F3 and put the program disk into the drive. Part 2 will then be loaded in. This allows you to inspect on screen the contents of the Chronological and the Categories File and do a certain amount of editing and sorting.

First press option 1 to load the Master File. Option 2 then lets you list the Chronological File, either from start or from a disk of your choice. If you are interested in a particular disk, enter either the disk name or the disk id



Continued next month

DISK-MATE

Spoil yourself rotten with this unobtrusive little utility which takes all the hard work out of using a disk drive

By Malcolm Gallon

Disk-mate is a machine code utility which enables you to use the disk drive commands through pop-up menus and the function keys. You can use it to read the disk directory without affecting a Basic program in memory and also to gain easier access to the error channel.

It's true that these things are available with the DOS support program that comes with a 1541 drive, but this is hardly ideal and doesn't go far enough towards making the disk drive easier to handle. So I decided to write a pop-up disk utility that would not interfere with Basic or machine code programs and would allow access to most disk commands via the function keys, prompted by on-screen menus.

Where it sits

The placing of such a program is always going to be a problem, avoiding clashes with Basic, the popular machine code areas such as $C000,-$CFFF, cartridges such as the Mikro assembler which uses $8000-$9FFF, or the areas under the Basic and Kernal Roms. The best compromise is to put it just before the cartridge memory with the top of Basic lowered to protect it. So it is stored between $6899 and $7EFF in the following manner:

TEMP VARIABLE STORAGE:	$6899-$68DF
SCREEN DATA:	$68E0-$7099
MAIN PROGRAM:	$709A-$7EFE
TEMP STORAGE FOR DIRECTORY BLOCKS:	$7F00-$7FFF

The top of Basic is lowered to $6898.

The routines do use some page zero locations but these are stored on entry and put back on exit from the program.

There are also temporary colour tables stored under the Basic Rom between $A800-$B100 which are written to each time Disk-mate is called so other data stored there will be corrupted. The only other clashes that can occur are with programs that use the areas mentioned above or that redirect the IRQ vectors at $0314 and $0315. In the later case Disk-mate can be restarted with SYS 28826.

Once loaded Disk-mate can be called up at any time by pressing the F1 key. The function keys can then be used as follows:

Menu 1

F1-DISPLAY DIRECTORY: This prints the disk directory to the screen in blocks of eight files. Press return for the next block of files, if available. Press F8 at any time to exit.

F2-INITIALIZE DRIVE: Initializes the disk drive, returning automatically to menu 1.

F3-READ ERROR CHANNEL: Reads the error channel, printing the result to the screen in the usual form. Press F8 to exit.

F4-VALIDATE DISK: Validates a disk, returning automatically to Menu 1.

F5-CHANGE SCREEN COLOUR: changes screen colour at each press of the F5 key.

F6-CHANGE BORDER COLOUR: changes border colour at each press of the F6 key.

F7-GO TO NEXT MENU: puts the second menu on screen.

F8-EXIT DISK-MATE: exits the program, restoring the page zero locations and the screen to the conditions on entry.

Menu 2

F1-SCRATCH FILE: scratches the specified file. press any key to scratch another file or F8 to exit the input routine. Press F8 to return to Menu 2.

F2-DIRECTORY @ SCRATCH: Displays the disk directory as before, then calls the scratch routine. Press any key to scratch another file or F8 to exit the input routine then either return for another directory block or F8 to return to Menu 2.

F3-RENAME FILE: Renames the specified file. press any key to rename another file or F8 to exit the input routine. Press F8 to return to Menu 2.

F4-DIRECTORY @ RENAME: Operates the same way as Directory @ scratch but calls rename routines.

F5-FORMAT/CLEAR DISK: Either clears the directory of the disk or formats the complete disk, and depending on which option is followed returns automatically to Menu 2. Make sure you have the correct disk in the drive before entering this command as it is not possible to recover data from a reformatted disk. Press F8 at any time to return to Menu 2.

F6-COPY FILES: Makes a copy of the file entered, returning automatically to Menu 2. Press F8 to exit routine at any time.

F7-CHANGE DRIVE NUMBER: Changes the disk drive device number to 08, 09, 10 or 11, incrementing the number by pressing the F7 key until the desired value is reached. Using this routine it should be possible to use more than one disk drive without having to permanently change any device numbers. The method for two drives is as follows. With one drive switched on (default number 08) and Disk-mate loaded, go to Menu 2 and press the F7 key. The press the F7 key again to change the device number to 09, pressing F8 to exit from the routine. Then connect up the second

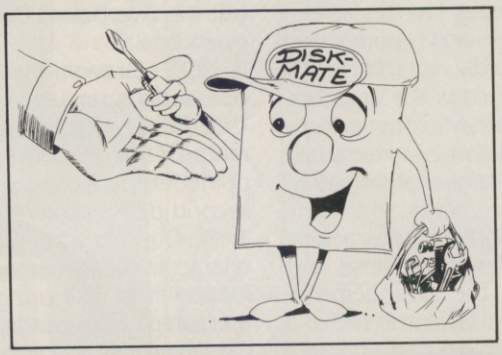
drive and switch it on, which will initialize it to the default device number of 08, so you will have two drives connected, one as device 08 the other as device 09.

When the device number of a drive has been changed, on entry to Disk-mate via the F1 key you will be asked which drive number you are using, so that you can direct commands to whichever drives you have connected. The routine will not allow you to access a device number that is not present. As usual you can exit any of these routines using the F8 key. Please remember when you have returned to Basic to use the new device numbers when loading, saving etc.

F8-RETURN TO MAIN MENU: Returns you to Menu 1.

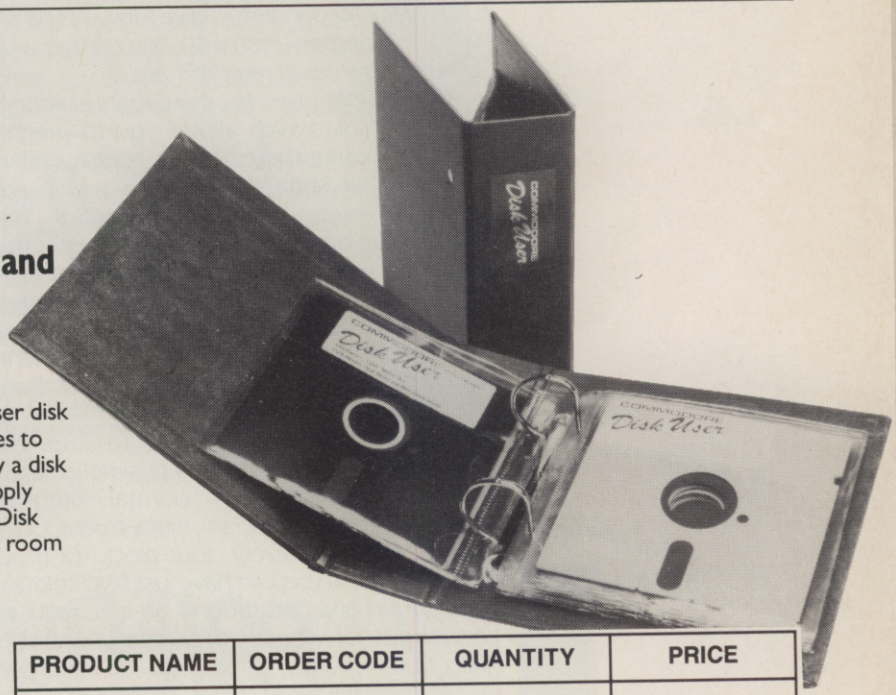
Loading the program

Disk-mate can be loaded outside the menu by entering LOAD "DISK-MATE", 8, 1 followed by SYS 28826.



Binders

Organise and protect your disk with Commodore Disk User disk binders and data disks.



Why not keep your Commodore Disk User program collection alongside your magazines in a stylish Disk User disk binder? The binder comes complete with 10 disk sleeves to organise and protect your program disks. Why not buy a disk binder to house all of your data disks? We can even supply Commodore Disk User data disks. The Commodore Disk User logo immediately identifies your disks and there's room to title them and document the disks details.
Send for your disks and binders now!

Prices are as follows:
Commodore Disk User Binder £4.95, including 10 sleeves. Order code **BDYU1**
Commodore Disk User Binder with 10 sleeves and 10 disks, £9.95 Order code **BDYU2**
10 sleeves for insertion in binder, £1.50. Order code **BDS10**
20 sleeves for inclusion in binder, £2.75. Order code **BDS20**
10 Commodore Disk User data disks, £5.95. Order code **BDD10**

PRODUCT NAME	ORDER CODE	QUANTITY	PRICE
Overseas postage add £1.00			
		TOTAL	

Noluxe Paint

This multi-featured graphics editor will prove to you that there's still life in low-resolution graphics.

By Ludo Decock

Low-resolution graphics is the Cinderella mode on the C64. The machine doesn't have the sort of low-resolution Ceefax mode that is so popular on the BBC, for example, so everyone goes on to hi-res without bothering about the graphics characters.

Yet low-resolution offers significant advantages in many areas. A low-res screen occupies little memory and loads and downloads extremely rapidly, which is why Ceefex and Prestel screens look the way they do. If you've ever tuned into Micronet using a C64, you'll see that these sort of screens can be achieved, and Noluxe Paint enables you to do exactly that.

The key is in the seven graphics characters: 161; 162; 172; 187; 188; 190 and 191. These, and their inverses, cover all the arrangements possible with a block one-quarter the size of a normal character. These blocks, if you can use them independently, give a low-res screen with a resolution of 80 x 50. You can get a fair bit on a low-res screen this big.

On our disk, besides the Graphics editor, Noluxe Paint, which allows you to prepare and manipulate these screens easily, you will find another suite of programs which add extra features. You can prepare and incorporate new character sets, even a sprite, and you can change the characteristics of these sets. The option you will probably find most useful scans a low-resolution screen and converts it into a series of DATA statements which can be placed in any of your Basic programs.

Before we explain how to use the program, a word on colour. For simplicity, the program functions in normal high-res character mode, not in multi-colour. This means that for every four-block (2 x 2) character area, you can have just two colours, foreground and background. So it is useful to watch out for where your shape boundaries lie.

Using the editor

The editor program operates by single-key-stroke command. Perhaps the most important of these is H (Help) which will give you a list of commands. There are some keys which are used very frequently. The most obvious are the cursor keys, which are used to move the drawing pen around the screen. Back-arrow is used as an 'activator' key in a number of the command modes.

The full set of commands is as follows:

P: PLOT - Plots a point at the cursor position.

L: LINE - On selection of this option, a second cursor is activated. Move this to where you wish the line to end and press back-arrow to draw the line.

R: RECTANGLE - Operates similarly to Line, but the two points are opposite corners of an open box.

B: BOX - Draws a filled rectangle. The mode of operation is similar to line.

C: CIRCLE - Draws an open circle. Similar mode of operation to Line, except that the first point defined is the centre of the circle, and the second defines the radius.

T: TEXT - Puts you in Text mode. If you have a character set in memory, and if not it can be loaded from disk using the Disk menu, then you can plot big characters on the screen. You can leave this mode by the Back-arrow key. The characters are not automatically spaced, so you can space them out to your liking using the space bar.

S: SPRITE - Similar to Text, in that if you have loaded a sprite from the Disk menu, you can plot this on the screen.

I: INVERT - Inverts the entire screen.

K: COORDINATES - Displays the current cursor position at the top left. Turn off using Back-arrow.

H: HELP - Displays help menu.

Q: QUIT - Exits the program.

D: DISK - See disk menu.

Besides these commands, the function keys also perform various functions.

F1: Plot Mode - Flips between plotting or unplotting points. You can tell which mode you are in from the border colour. This will be green for plot and red for unplot.

F2: Plot Colour - Moves along one colour each time pressed. Current colour is shown by the cursor colour.

F3: Background Colour - change in same way as plotting colour.

F4: Character Colour - colour for text mode. Change the same way as plot colour.

F5: Paint Mode - Gives you a paint cursor which you can use to change the colour of your design.

F6: Clear Screen - Be careful.

F7: Fill Screen - Fills the screen with any character you select.

F8: Oops - If you have made a mistake, use this to restore the screen.

The disk menu

This is accessed using keypress 'D' and has seven options, selected using the numeric keys:

1: Load Characters - Loads a character set from disk. The set must have been created using the Character Editor or Auto Editor modules. These create files starting with 'k.', but you can ignore this part of the filename.

2: Load Screen - Will load any low-res picture with load address 1024. Loading the associated colour screen is optional - the program will ask you. Files must begin with 'b.' for screen and 'c.' for colour, on disk, but you don't need to specify these here.

3: Save Screen - Saves current screen information with the appropriate prefixes.

4: Load Sprite - Only one sprite at a time can be loaded.

5: Directory.

6: Go On - Returns you to the main program.

7: Disk Status - Displays information from the disk error channel.

A number of added options, which must be loaded separately, create files for use with Noluxe editor. These are: Character editor; Auto character; Noluxe Sprite; and Noluxe list.

Character editor

This allows you to create a simple alphanumeric character set for use with the editor. The characters can be any size up to a height of 29 blocks and a width of 20. Additionally, they must contain fewer than 256 blocks each.

Initially the program allows you to load an existing set from disk. If you don't want to do this, you must specify the size of character you want. Following this you go into edit mode, where the function keys operate as follows:

F1: Mode - This flips between three modes: Set point (border grey), erase point (border light grey) and no changes(border black). The mode affects what happens when you use the cursor keys to move around the character matrix displayed on screen left.

F2: Save - Puts the character you are working on into the character set memory at 12288. The current character number is shown at the bottom right.

F4: Save - Saves the set to disk with the filename of your choice. The program adds 'k.' to the filename.

F8: Run - Restarts the program.

+: Moves forward one character.

-: Moves back one character.

Auto character

This can be used to prepare a character set from the normal Commodore characters, or, if you have a Commodore character set of your own, you can convert it for use with Noluxe. It must however be loadable at 12288.

Besides converting the set, the program gives you the option of making it double height, double width or normal.

When you save a set from Auto Character, the program automatically adds 'k.' to the filename.

Noluxe sprite

This allows you to flip through your sprite memory and select a sprite for use with the editor. You can also alter the sprite on the way through. The program asks for a location number and then displays the sprite, plus a listing of the numbers in all the sprite bytes. If you choose, you can page through these using the M key or stop to change one by entering C. When you have finished, the program allows you to save the sprite to disk.

Noluxe list

This is possibly the most useful option of the lot. If you have created a Noluxe screen, this module will convert it to a series of Basic DATA statements. It isn't fast - it takes about three minutes per screen - but it beats typing it all in.

The program simply asks for the filename, loads and displays it. F2 can be used to change the screen background, and the listing is initiated by F7 at which point the screen turns black and the border starts flashing. When the flashing stops the listing is ready. It now replaces the List program.

Loading the program

Noluxe comes as a number of separate modules. Modules needed for the full suite are:

NOLUXE
NOLUXE PAINT
NO 1
NO 2
NO 3
CHARACTER EDITOR
AUTO C
NOLUXE SPRITE
NOLUXE LIST

To load the editor/paint program outside the main menu, enter LOAD "NOLUXE",8 and RUN. This will give you the Noluxe menu.

ON THE DISK

Text Cracker

Ever wanted to get your hands on some of those wacky character sets in your favourite games? Text Cracker may be the answer

By Kent Sandelin

Text Cracker is a small but useful utility that allows you to scan through your Commodore's memory to locate character sets and then to incorporate them into your own set. With it comes a small routine, which, when called, will display strings in the new character set, and in a large format.

The first thing Text Cracker asks is whether you want to save the Ram area used by the program to disk. The next screen is the main menu, with the following options:

1. Download Characters. This simply moves the Commodore's own character set to the Text Cracker area at 12288, so that the user has some basis for setting up their own new character set.

2. Load Characters. Loads characters in from disk to the Text Cracker aera at 12288. You will be asked for a filename.

3. Save Characters. Saves the new characters from the Text Cracker area at 12288 to disk. You will be asked to supply a filename.

4. Character Cracker. This enables you to extract a single character from any area of Ram. The lower half of the screen will show your character set area at 12288. The upper half will show an area of Ram in character format. The upper half can be scrolled through in different ways, by using the function keys. The Function keys scroll forwards, and when shifted scroll backwards through memory. The effects are as follows:

F1/2: Scroll back and forwards 2048 bytes (the size of one character set) at a time.
F3/4: Scroll back and forwards 256 bytes (32 characters) at a time.
F5/6: Scroll back and forwards 8 bytes (1 character) at a time.
F7/8: Scroll back and forwards 1 byte at a time.

The object of all this scrolling is to capture one character in the cursor box at top left. When you have the character you want, then press Return to move to the installed set at 12288. Use the cursor keys to move the second cursor around this and then press Return when you have selected the place where you want the character to fit in.

To return to the main menu from this option press Back-arrow.

5. Text Cracker. This operates similarly to Character Cracker, except that a large chunk of the character set can be grabbed at one time. This chunk can be selected when you are in the option by pressing the following alternatives:

S: Lower-case letters
B: Upper-case letters
N: Numerals

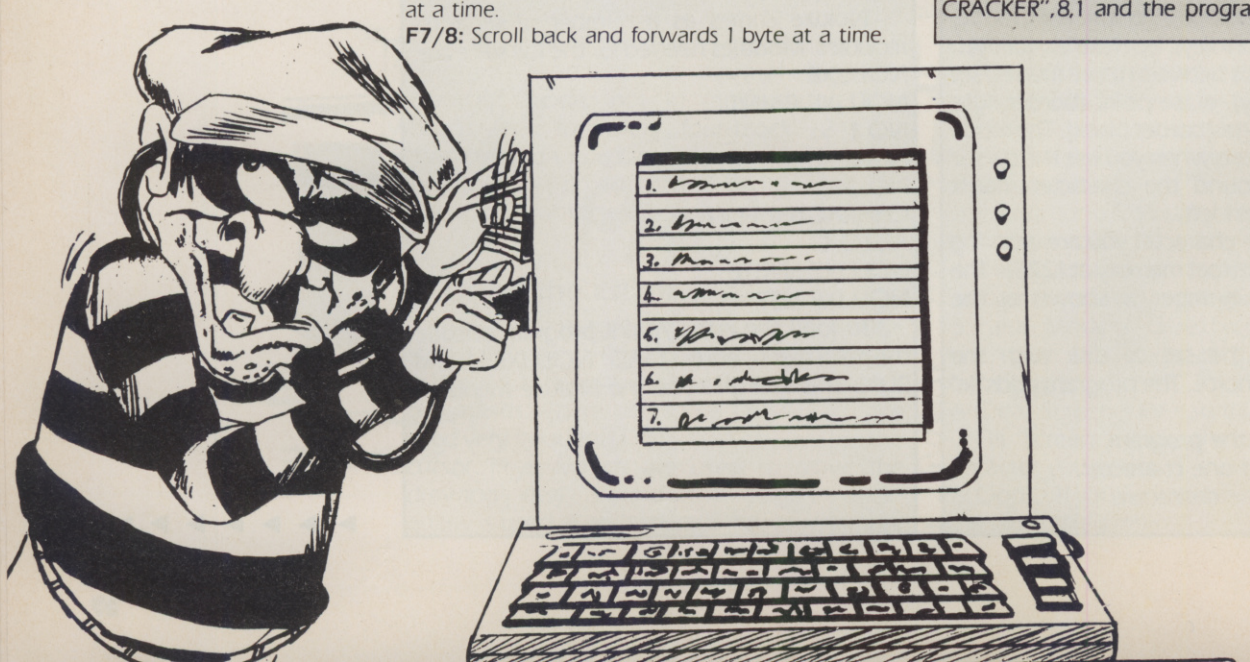
The appropriate sized cursor slot will appear at top left, 26 wide for options S and B, and 10 wide for option N. Once again, you scroll the characters into the box, and press Return to place them in the character set at the bottom. There is no need to select the position of the characters in the set as they will automatically replace the existing lower-case, upper-case or numeric characters. Back-Arrow will get you back to the main menu.

6. Backload Ram. This restores the Ram at 12288 that you may have saved to disk with option 1.

7. Directory: Gives you a disk directory.

LOADING THE PROGRAM

To load and run Text Cracker type LOAD "TEXT CRACKER",8,1 and the program should autorun.



Quad

We've all seen a lot of games that involve doing things to piles of bricks, but this is a bat and brick game with a difference. Four bats in two dimensions? Read on...

By Nick Sumner

Quads is Breakout with a difference. In fact, it should be called Break-in. Instead of just one fiddly little bat at the base of the screen, you have four bats, one for each side. This time, you have those bricks surrounded!

You control the bats at top and bottom with joystick left/right, and the left and right joysticks with joystick up/down. Unlike all other games of this sort, you do not lose a life if the ball gets past your bat. In fact, the ball never leaves the screen - the point is to stop it bouncing off the side. The penalty for letting the ball past is that you lose a brick from the screen.

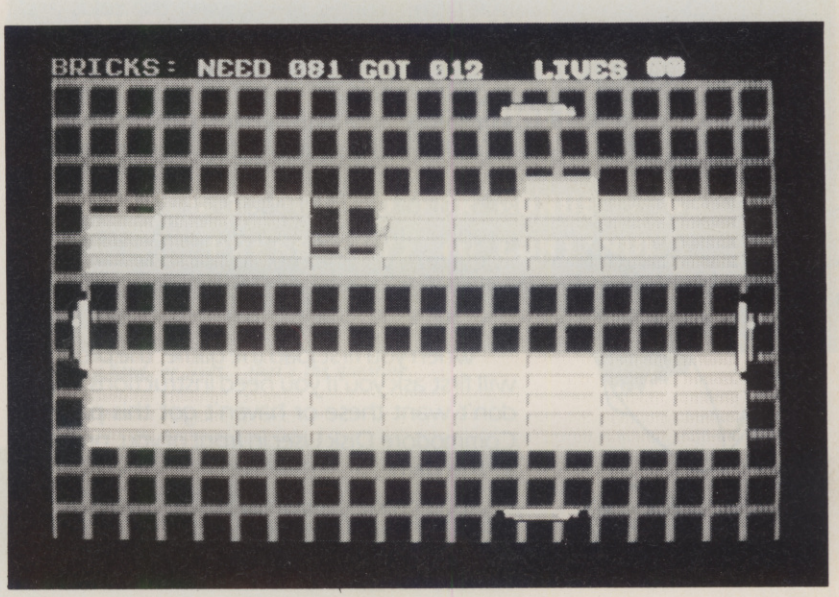
You might think that an advantage, since what you need to do is get rid of bricks. But no, because the brick lost does not count towards your score, and reduces the number left for you to score on. Since you need a certain number of bricks to get to the next screen each time, this can lead you to be trapped at the same level all over again.

The counters at the top of the screen will give you an idea of your current situation. The Need figure shows you how many bricks you want to progress to the next frame, and the Got figure shows you how many you have towards your total. If you are in a frame, you must still clear all bricks present to progress.

However, you must be careful that you don't lose enough penalty points to drop the need figure below that you need to complete the frame, otherwise you'll have to do it all over again, Devilish, Eh?

If, in the process of clearing the screen, the Got counter drops to zero, or on completing a screen you fail to achieve the Need value, one life will be lost. Lives are shown by the smiling faces. When all three are gone, the game ends. No extra lives will be given.

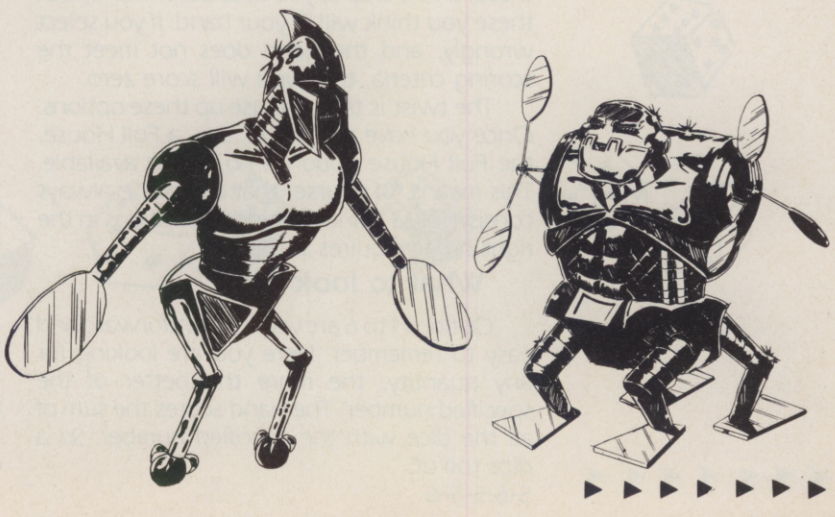
There are eight screens in all, and besides this, the game offers a number of options. It can be played with one or two players - one player controlling the left/right joystick, and the other controlling the up/down. The bat size can be made large or small, or the ball speed made fast or slow. All these options are chosen after the loading screen appears, as follows:



F1: Number of players. Toggles between one and two.
F3: Bat size. Toggles between large and small.
F5: Ball speed. Toggles between fast and slow.
F7: Starts game.

LOADING THE GAME

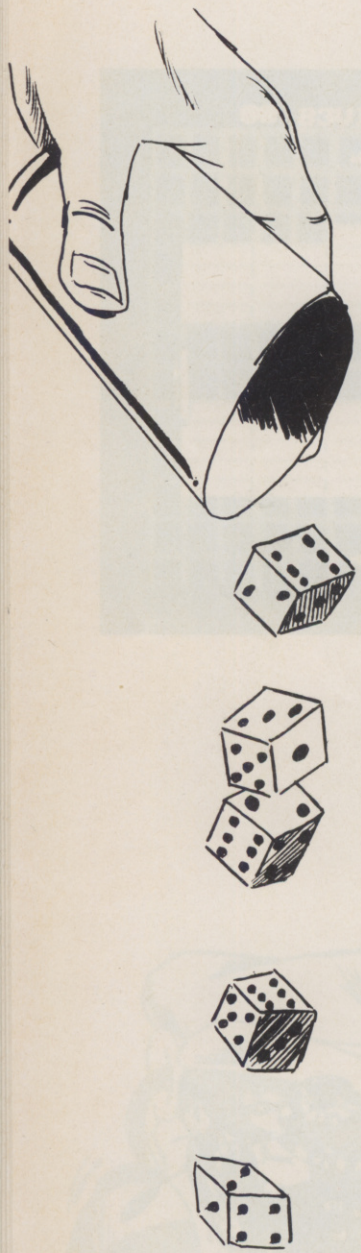
To load the game outside the menu, type LOAD "QUAD",8, and run.



Five - Up

You're certain to get hooked on this dice game that contains unexpected subtleties

By Michael Powell



Five up is a game played with five dice. It is, however, more than just a game of chance. Just as in Poker, the fall of the cards, or dice in this case, is important, but the real secret comes in knowing the odds and making the best of a bad deal when it comes up.

Although it's a very simple game, Five up is surprisingly compulsive, and the best way to achieve a high score is not always immediately obvious. In our version, you can play the game solo, or pit yourself against up to four other people. In both cases, the computer moderates your efforts.

How to play

When you first load the game, the program will first ask you if you need instructions. If you don't want these or haven't got this page of Commodore Disk User in front of you, proceed to the game.

In Five up, each player throws five dice repeatedly to achieve any one of a number of favoured combinations. We can call these 'hands', as some of them are similar to the winning combinations seen in Poker.

The first throw is entirely random, and the program presents you with this. At this point you may hold one or more of the dice and rethrow the rest to try to improve the hand. Once held, a die cannot be rethrown. You only get two rethrows, and in the end you have to make the best of what you've got.

You are looking for any one of 13 combinations of dice which can add to your score. The machine assigns a code to each of these, and it is up to you to select which one of these you think will fit your hand. If you select wrongly, and the hand does not meet the scoring criteria, then you will score zero.

The twist is that you use up these options. Once you have scored on, say, a Full House, the Full House option is no longer available. This means, of course, that the game always consists of 13 'hands'. Using the options in the right order requires some skill.

What to look for

Options 1 to 6 are very straightforward and easy to remember. Here you are looking for any quantity, the more the better of the specified number. The hand scores the sum of all the dice with the specified number. So a dice roll of:
5-6-5-5-6
would score 12 if declared as option 6, or 15 if option 5 is specified.

Sounds simple, but there is an extra complication to look out for. You can achieve a bonus score of 35 points on these first six options, provided that you get a score of greater than 63 points on options 1 to 6. The program helpfully tells you how far you have to go to get the bonus at the start of each hand.

Options 7 and 8 are self-explanatory. They require three of a kind and four of a kind. They score the sum of all the dice rolled. So:
4-3-2-4-4
can be called as option 7 and scores 17, while:
3-1-3-3-3
scores 13 as an option 8.

You can see how choices start to emerge. The last two hands could have been called as options 4 or 3 respectively.

Option 9, a Full House may need some explanation for those who don't play Poker. A Full House is a combination of any pair and any three of a kind. So:
5-5-2-5-2
is a Full House. This hand always scores 25 irrespective of the dice value.

Going straight

Options 10 and 11 are straights. A straight is a sequential run of numbers. So:
3-1-5-6-4
contains all the numbers for option 10, a small straight, meaning four numbers in a row, in this case 3 to 6. Small straights always score 30, while a large straight such as:
2-1-5-3-4
which contains five sequential numbers, falls into option 11 and always scores 40.

Finally we come to the big one, a 'Five up'. This just means five of a kind, such as:
4-4-4-4-4
and this gets a nice big score of 50. There is an added complication here. If you should be so fortunate as to get a Five up, the program will give you another chance at doing the same thing, and a new option, option 14, will appear, a Double Five up, which scores a bonus of 100.

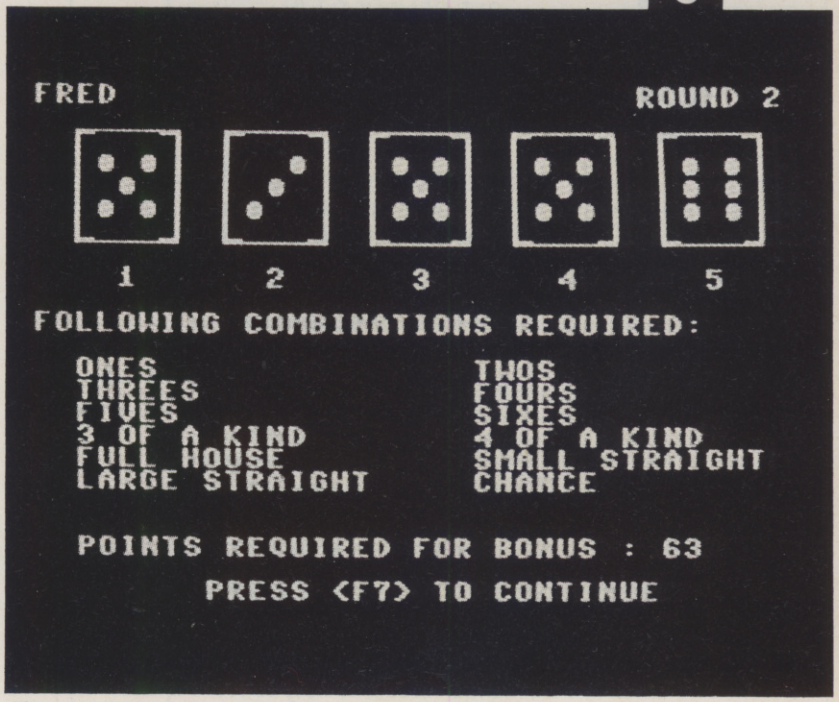
There is a slight problem with the Double Five up option. You must, if you get it, assign it to another unused option, which will fit it. As an example:
1-1-1-1-1

is a Five up, and can be assigned to either option 1, or options 7 or 8, which are Three and Four of a kind. If these are not available you may not be able to use the option. If no suitable options for Five up are available, you will not even be offered the Double Five up option. The Full House and Large and Small Straights are not suitable options for a Five up, if you think about it.

You could also assign the hand to obtain 13, Chance, which we have not mentioned so far. Chance will accept any hand and scores on the face value of all the dice. It gives you a once only option to dump a bad hand, or you could keep it in reserve to use for your second Five up.

Some hints

Useful tips are to try and get rid of the Full House and Straights early, as they are of no use with a Double Five up, and don't get rid of the Four and Three of a Kind options too soon. Firstly, hands of this sort may well contribute hugely to an eventual bonus if used for options 1 to 6, and secondly they can be useful options in which to place a Double Five up. ■



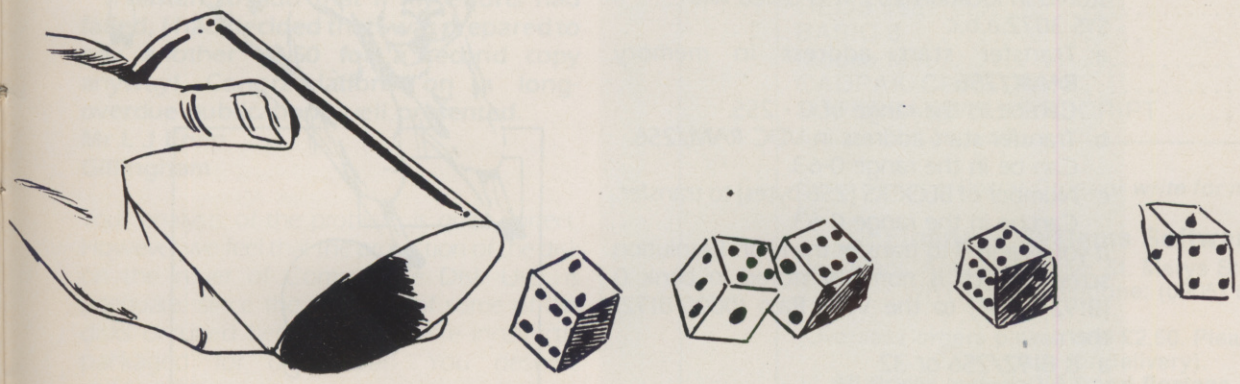
Three of a kind, or fives... that's the question.

Option summary

1-6 Value of specified dice, plus 35 bonus if 63 points exceeded on sum of all six options.
7 Three of a Kind. Scores sum of all dice rolled.
8 Four of a Kind. Scores sum of all dice rolled.
9 Full House. Scores 25.
10 Small Straight. Scores 30.
11 Large Straight. Scores 40.
12 Five up. Scores 50.
13 Chance. Scores sum of all dice rolled.
14 Double Five up. Bonus score 100 but must be assigned to another option.

Loading the program

To load the program outside the menu, type LOAD "FIVE UP",8,1 and RUN when the program has loaded.



C128 Ram Disk

Ever heard of the Commodore 144? Well, it didn't exist until now. This routine allows you to squeeze another 16K out of your C128.

By Kevin Stelfox

The Commodore 128 offers both 40 and 80-column output but unless you have an 80-column monitor you cannot use the 80-column output. This 80-column display is driven by the C128's Video Display Controller (VDC) which has its own 16K of Ram that is completely independent of the main computer Ram. This 16K is mapped in memory as follows:

0000-2047 Video (Screen) RAM
2048-4095 Attitbute (Colour) RAM
4096-8191 Free area
8192-16383 Character Set

When using the 128 in 40 column mode this 16K of VDC Ram is not used by the operating system but it can still be addressed by the programmer. This program allows you to use this unused Ram as a sort of Ram disk and in effect turns your Commodore 128 into a Commodore 144 because you now have an extra 16K of memory to work with when in 40 column mode. The extra Ram could be used to store a high-res screen, a Basic program or any block of memory.

The program supplied is a machine code routine which sits in the RS232 buffer. Two routines are incorporated to allow memory to be transferred from any of the 16 Ram banks to the VDC Ram and vice versa. The number of the bank where memory is to be transferred to, or from, must be Poked into location 255 before calling the routines. E.g. if you wanted to transfer memory from RAM BANK 0 then you would enter: POKE 255,0

1. TRANSFER MEMORY FROM ANY BANK TO VDC RAM (STORE)

This routine will transfer up to 64 blocks of memory (16K) from the bank whose number is stored in location 255. It is called with:
SYS 3072,a,b,c

a: Transfer start address in memory BANK/256.
Can be in the range of 0 - 255.
b. Transfer start address in VDC RAM/256.
Can be in the range 0-63.
c: Number of BLOCKS (256 bytes) to transfer.
Can be in the range 0-63.

If you wanted to transfer the High-Resolution screen which is normally stored in bank 0 (8192-16384) to the VDC Ram (0000-8192) then:
a is 8192/256 or 32
b is 0000/256 or 0
c is (16384-8192)/256 or 32
The command entered to transfer the memory would be:
POKE 255,0:SYS 3072,32,0,32

2. TRANSFER VDC RAM TO MEMORY IN ANY BANK (RECALL)

This routine is the exact opposite to the last routine and will transfer up to 64 blocks of memory from the VDC Ram to the bank whose number is stored in location 255. It is called with:
SYS 3075,a,b,c
Where a, b and c have the same parameters as STORE.
If you wanted to transfer the High-Resolution screen that you have just stored in the VDC Ram to 16384-24576 in Ram bank 1 then:
a is 16384/256 or 64
b is 0000/256 or 0
c is (24576-16385) 1256 or 32
the command entered to transfer the memory would be
POKE 255,1:SYS 3075,64,0,32

Continued from page 8

Disk surgery

Dear CDU,
I was immediately impressed with the scope and quality of the magazine and disk.

I have only one criticism, and that is the physical protection afforded the disk. The stiff card undoubtedly reduces the risk of bending the disk, but gives no protection from crushing effects and it seems that my copy had suffered from these.

When inserted into the drive, any disk access resulted in error messages. Investigation revealed that the protective casing of the disk had been distorted at the edge, particularly in the vicinity of the head access slot, with the result that the liner was gripping the slot and preventing rotation.

Being impatient to get at the contents of the disk, I elected to carry out a little 'surgery'. Insertion of a sharp modelling knife swiftly unsealed the casing and careful use of plastic tweezers effected the opening of the case. Having opened the casing, it was a simple matter to bend it open along the edge near the access slot and relieve the pressure on the disk.

After resealing the disk, I am happy to report that I managed to make the recommended back-up copy and have had considerable pleasure trying out the utilities and demos.

I hasten to add that if my efforts had failed, I had decided that I was prepared to pay another £2.50 for a second copy anyway! Congratulations on a long-overdue publication, well presented.
Mr L J Ervin
Gillingham

Your analysis of the problem is quite correct. However we feel that the protection of the disk on the cover of Commodore Disk User is adequate, since the crushing of some of the disks occurred because they were incorrectly packaged for distribution. You deserve congratulations on your initiative in repairing the disk, and any other readers who have problems may wish to take note. For those who don't feel up to it, replacement disks are available, so you would certainly not have had to buy another copy, Mr Ervin.

Serious 128 Users....

NEW **1351 MOUSE.**

The Only 100% proportional compatible Commodore Mouse, works with GEOS 64/128. CADPAK and CHARTPAK. Only £29.95, GEOS 64 update to use 1351 Mouse £7.50.

NEW **128 CANNON.**

The latest high speed copier from the USA, it will copy between the 1541, 1571, 1570 and the new 1581. Includes a Nibbler, (Copies protected disc within 115 secs). Fast Copier (very fast), File Copier, 1581 Disc and File Copiers, MFM Copier to copy some IBM/CPM software, T/S Editor, Disc Error Scanner, Density Scanner and KRACKER JAX with 100 parameters.Only £29.95.

NEW **128 HELPER.**

The 128 Helper is the first electronic reference manual for the 128. Let's say you are in the middle of writing a program in BASIC when you realize that you need more information on a specific command, just touch the help key, almost instantly a menu appears with all BASIC commands, select the command in question and a screen of detailed information appears, at the press of a key you return to your BASIC program. The most exciting feature of th 128 Helper is the program is user definable. The program will guide you to create your own custom screen files. This program will only cost you £24.95.

NEW **The Big Blue Reader CP/M.**

New from S.O.G.W.A.P. Software Inc., The Big Blue Reader allows you to transfer files generated on most IBM-Compatible (MS-DOS) software to all three operation modes of the Commodore 128 and vice versa. Thus, files can be trasferred to or from MS-DOS, 128 and CP/M disk formats, with optional ASCII translation. You may no longer be discouraged because your C128 is not MS-DOS disk compatible, or that your C128 CP/M disks are not industry standard. The program, which runs in C128 mode, is available for £29.95. Detailed information is available on request.

★★ **New Little Blue Reader for 64 Users** ★★

NEW **3 1/2" Disk Drives.**

The NEW Commodore 1581 Megabyte disk drive is now available. The NEW 3 1/2" disk drive is compatible with most commercial software and will operate on the Commodore 128, 64C, Plus/4, C16 and VIC-20. The 1581 offers the professional user,808k formatted disk capacity, (3160 Blocks Free), 8,000 Bytes per second transfer rate and sub-directories. Commercial software available includes HackPack, Petspeed, Oxford Pascal, GEOS 128, Fontmaster with Spellmaster, CADPAK and CHARTPAK. The disk drive is available by mail order for only £199.95.

GEOS 128	**£49.95**
BASIC 8	**£34.95**
Mouse Mat	**£5.99**
CADPAK/CHARTPAK	**£34.95**
SUPERBASE/SUPERSCRIPT	**£39.95**

Send Cheque/Postal Order or write for more information to:-

Financial Systems Software Ltd.,
2nd Floor, Anbrian House, St. Marys Street, Worcester, WR1 1HA. Telephone: (0905) 611463

(Overseas orders please add £2.50. Please allow upto 14 days for delivery).
All Prices Include VAT and Postage and Packing.
★★★ **EXPORT ENQUIRIES WELCOME** ★★★

Now available from Micro Accessories of South Australia
Tel: (8) 2870191

Disk Dungeons

Grontol the Mad offers his help to adventurers in need of guidance... or an argument.

Guild of Thieves hints

1 To get past the iron bars, simply break them
2 To get into the jewellers, break the window
3 Release the rope ladder before you go under water
4 Catch flies in the jam jar in order to get rid of the spider
5 Crossing the multi-coloured room involves moving according to the colours of the rainbow. Part of the skeleton could be useful for opening as a lock
6 You can teach the mynah bird to talk whereas the macaw has a penchant for coconut

A number of you have taken issue with my views on the future of adventures. Chris McBride of Tottenham is one. He writes:

"I read your article on the future of adventures in the last issue and wish to say that I disagree violently with you. Adventures and role-playing games are totally separate entities and should not be mixed up."

"The whole idea behind adventures is that you are presented with a series of problems that need to be solved, whereas all you do in RPGs is fight battle after battle until you are experienced enough for one last final conflict. I much prefer using my brains to finish a game rather than know that I will finish it if I play it for long enough. Keep RPGs out of the adventure pages."

Well, Chris, my personal view is that with any adventure or RPG, what counts most is the atmosphere created by the game. Although they are not perfect by any stretch of the imagination, RPGs offer more realistic scenarios. These games are in their infancy. They will improve. Clearly defined quests do exist and they will surely get more sophisticated and encompass the problem-solving that Chris wants. The problem with a lot of adventures is that they have poorly written storylines. RPGs are, of necessity, more structured and this is reflected in the storyline. If you want a series of problems, may I respectfully suggest that you take up crossword puzzles! Just to show that there are no hard feelings though, Chris gets this month's prize letter award.

Newcomers start here

Keith Slater of Stockport is a newcomer to adventures and asks if I can recommend some games, including an RPG. OK, Keith, for a start, most games by Infocom can be strongly recommended. Subjects range from fantasy to detective stories via science fiction and adventure. Titles to look out for include the Zork trilogy, Deadline, Suspended, Hitchhiker's Guide to the Galaxy and Leather Goddesses of Phobos. The only problem with these games is that they are somewhat expensive at £25 a throw. The good news though is that if you go to any computer show, you can usually pick up some of the early titles for as little as £1.50. Infocom games are marketed by Activision. These have got to be one of the bargains of the year. Other titles to look out for would be The Pawn and The Guild of Thieves from Magnetic Scrolls, marketed by Rainbird.

As far as role-playing games go, I would suggest that you start with Ultima IV from Origin, marketed by Microprose, which is a huge game featuring excellent combat and magic systems and which allows limited conversation with hundreds of characters. The Bard's Tale from Electronic Arts and Alternate Reality - The City and The Dungeon modules from Datasoft/US Gold are all excellent games.

Yes Prime Minister

It was, I suppose, inevitable that someone would come up with a game based on the popular television series sooner or later. That someone is Mosaic which has already produced games based on Adrian Mole.

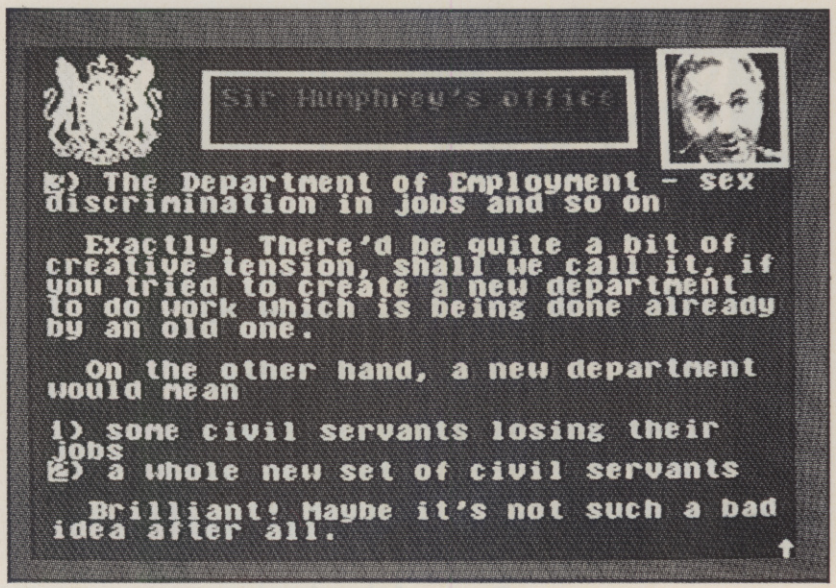
For anyone who has never watched the TV series, the game involves the machinations of a top Whitehall Civil Servant, Sir Humphrey Appleby, who is trying to outwit the new Prime Minister James Hacker. Trying to keep peace between the two is the PM's Private Secretary, Bernard Woolley.

You play the part of James Hacker, trying to survive for a week which is, as Harold Wilson once said, a long time in politics.

The game presents you with a view of your office. You can move a cursor over various objects such as your diary and the teletype machine in order to find out what is going on. These and other items will keep you informed as to what is happening in the world and what meetings you have to attend. Time flows throughout the game and it is up to you to make sure that you are in the right place at the right time. To leave your office, move the cursor over the door and you are presented with a list of various alternatives.

When in meetings, you are given the choice of several responses that you can make to various questions. As you choose your answers, so your ability is judged accordingly. Most of the dialogue is excellent and, as such, will appeal to fans of the series. The game itself though is somewhat limited in gameplays. You can go through most of the options fairly quickly and there is no real incentive to go back to the game. I would suggest that buying one of the books of the series would prove to be much better value.

Gordon Hamlett


Sir Humphrey's office
(2) The Department of Employment - sex discrimination in jobs and so on
Exactly. There'd be quite a bit of creative tension, shall we call it, if you tried to create a new department to do work which is being done already by an old one.
On the other hand, a new department would mean
1) some civil servants losing their jobs
(2) a whole new set of civil servants
Brilliant! Maybe it's not such a bad idea after all.

AT A GLANCE

Title: Yes Prime Minister
Supplier: Mosaic
Price:
Graphics: Some nice digitised images
Sound: telephones ringing, printers printing
Addictiveness: No great urge to return
Playability: Very simple therefore the Civil Service will hate it.

Nord and Bert

This is a departure from the normal style of Infocom game in so much as it is not one long story, but eight short ones. The problems have changed too. No longer do you have to kill monsters, open locked doors or rescue princesses. The problems here revolve around different types of word puzzles.

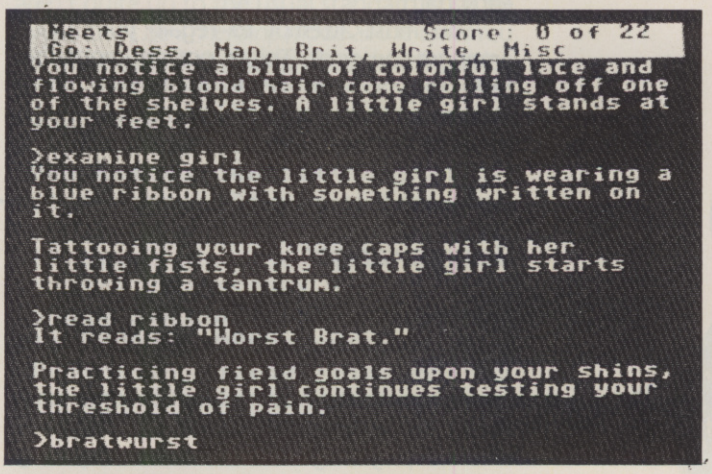
The game is set in and around the town of Punster. The town has been turned topsy-turvy by a whole series of strange events and it is up to you to put things to right. Seven of the scenarios can be played in any order that you want to. Successful completion gives you a password. The last section can only be entered if you possess all the passwords.

Each scenario deals with a different type of puzzle. For example, the first, set in a supermarket, deals with words that can be spelled in two different ways. When you are attacked by a moose, typing mousse will restore things to normal. Other sections deal with spooonerisms (the queer old dean becomes the dear old queen), cliches, proverbs etc.

The sections get progressively harder and this is where the fault of the game lies. You have to be a whizz-kid in American slang and idiom to get very far. There is a hint facility built into the game and even when I had looked up some of the answers, I was left none the wiser. One section in particular dealing with hurling insults at a stroppy waitress in a cafe, I just could not come to terms with at all.

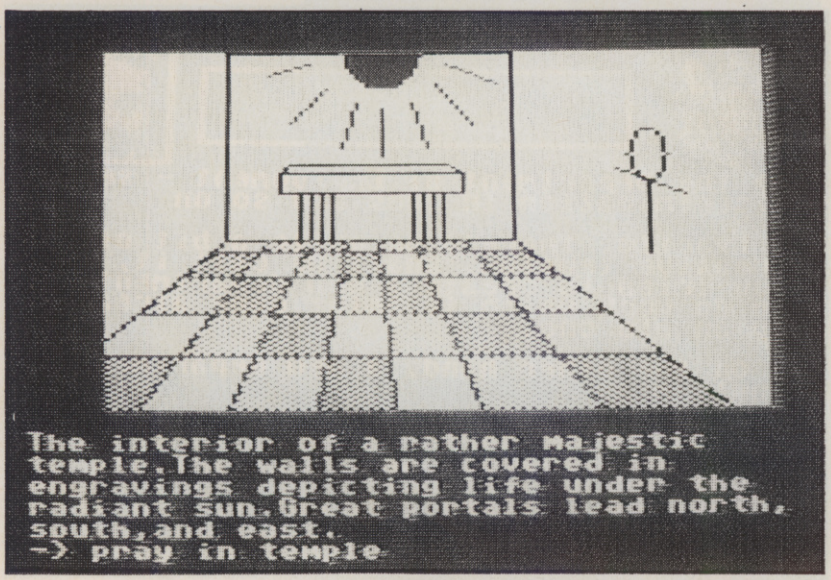
This is a pity because the idea behind Nord and Bert is excellent. Although a few of the solutions are a bit forced the idea of all the different types of word puzzle is highly original. But as George Bernard Shaw said, Britain and America are two nations separated by a common language. Unless you desperately want a collection of every single Infocom game, I suggest that you give this one a miss.

Gordon Hamlett


Meets
Score: 0 of 22
Go: Dess, Man, Brit, Write, Misc
You notice a blur of colorful lace and flowing blond hair come rolling off one of the shelves. A little girl stands at your feet.
>examine girl
You notice the little girl is wearing a blue ribbon with something written on it.
Tattooing your knee caps with her little fists, the little girl starts throwing a tantrum.
>read ribbon
It reads: "Worst Brat."
Practicing field goals upon your shins, the little girl continues testing your threshold of pain.
>bratwurst

AT A GLANCE

Title: Nord and Bert couldn't make head or tail of it
Supplier: Infocom/Activision. Tel: 01-431 1101
Price: £24.99
Graphics: N/A
Sound: N/A
Addictiveness: Lasts up until you meet the language problems
Playability: You will be making frequent use of the hint facility


The interior of a rather majestic temple. The walls are covered in engravings depicting life under the radiant sun. Great portals lead north, south, and east.
-> pray in temple

Book of the dead

Life in the Egyptian pantheon is a very cosy existence. Or at least it was until your father, the God Set, throws a wobbly and murders Osiris, the big chief. His plans to take the place of Osiris go sadly awry as he is banished and this reflects on you, Kteth, too as you too go for the ancient equivalent of the early bath.

You must attempt to regain your place amongst the gods. This is not an impossible task as you can hope to receive some clandestine help from a few of the deities who thought that you were harshly treated.

The key to your quest is the Book of the Dead. This details how a mortal soul may travel after death to the Other World.

Your first problem is to remove a curse that was put on you by Horus, the God who banished you from Paradise in the first place. This is a time-related problem and you will no doubt need to play the game several times before you get past it.

The story itself is very well constructed although some of the problems later in the game are a bit obscure. Certainly, the end stages of the game are not for the squeamish as you have to perform an auto-mummification.

The game was written using the Graphic Adventure Creator so the parser and graphics are not particularly wonderful compared to other games currently available. When I first saw this game on the Spectrum, it was at a budget price and excellent value for money. CRL then decided to market the game at full price and good though the game is, it is not worth that sort of money, especially when compared with this month's level 9 offering.

Gordon Hamlett

AT A GLANCE

Title: Book of the Dead
Supplier: CRL
Price: £14.95
Sound: N/A
Graphics: Nothing stunning
Playability: parser adequate, game not for beginners
Addictiveness: tough problems

Gnome ranger

Level 9 is back! Several titles have appeared in conjunction with Rainbird but their latest game, Gnome Ranger, is the first to appear under their own name for some time. And it is well worth the wait!

You play Ingrid Bottomlow, a young gnome who can only be described as obnoxious. This is not deliberate on her part, she certainly means well but things have a habit of falling to pieces fairly soon after she has repaired them. Certainly, her family are sick of the sight of her.

She was sent off to college for a course in gnome economics but proved to be so adept a student, that she finished her studies some twelve years early. Her family are not exactly enamoured by this turn of events and devise several plans to get rid of her. Eventually, a teleportation spell is used to good effect and Ingrid is let loose on an unsuspecting countryside.

The game is written using Level 9's KAOS system. The parser is excellent and can handle most of the inputs you are ever likely to want to use. Character interaction is considerable. Creatures can be recruited to your cause and you can then ask them to perform various tasks for you. Other interesting commands include running to somewhere and finding something. Ram Save and Oops are fully supported so there is no excuse for an untimely demise.

I have criticised Level 9's graphics in the

past but no more. Digitised pictures are used and if they aren't quite up to the standard of Magnetic Scrolls, there are some more of them and they add considerably to the atmosphere.

The text is verbose with some wonderful descriptions, all written in a lighthearted style. The storyline flows well and it is easy to build up a detailed picture of Ingrid, helped considerably by an excellent 48-page diary, included in the packaging.

Gnome Ranger is both original and a delight to play. That is a recommendation in itself but Level 9 have also decided to make a stand on software pricing. Deciding that £25 for some games is ridiculous, they have fixed the price at £10, even for disks. This must make Gnome Ranger one of the adventure bargains of the year.

Gordon Hamlett

What gnow? E
Ingrid went east and was beside a stream which was violently disturbed by the waterfall to the east of here.
Exits led gnorth, gnortheast, east, west and gnorthwest. Ingrid could see a bright rainbow to the east.
What gnow? EXAMINE RAINBOW

AT A GLANCE

Title: Gnome Ranger
Supplier: Level 9, (0344) 487597
Price: £9.95
Sound: N/A
Graphics: add to the atmosphere.
Playability: Excellent parser
Addictiveness: Definitely one to go back to

Plundered hearts

This game might almost be subtitled Infocom meets Mills and Boon. In the USA a large proportion of adventurers are of the fair sex and so this game has been written especially for them although rumour has it that a lot of failed Rambos are also enjoying it.

The time is the late seventeenth century. You are a Young English Rose who has just received a letter from Jean Lafond in the West Indies saying that your father is desperately ill and, could you possibly sail out there to see if you can help him.

Passage has been arranged for you to St. Sinistra on a ship owned by Lafond, Governor of that island. En route, you are attacked by a pirate ship led by the dashing Captain Jamieson. He also gives you a letter, this time from your father saying to trust the Captain. Obviously, something is afoot.

After that, your life alternates between saving ships from blowing up, attending balls and swooning in the appropriate places. Can you save the day and end up walking hand-in-hand into the sunset...?

The game is written in the usual Infocom style, which means long descriptions in appropriate flowery prose complete with witty responses to silly inputs. The problems aren't quite up to the usual standard in so far as you can't be in heroine mode all the time. You are not allowed to thump pirates with bottles as my wife (admittedly not the most genteel of people) tried although you must overcome acts of deliberate sabotage. Another problem is that when you want a bit of rag, you find that the material of your blouse is too tough for you to cut with your dagger. A few moves later though, the same blouse snags on something and tears easily.

The above description will give you some idea of whether or not the game will appeal to you. Personally, it did not although my wife quite enjoyed it which I suppose is what was intended.

Gordon Hamlett

AT A GLANCE

Title: Plundered Hearts
Supplier: Infocom/Activision
Price: £24.95
Graphics: N/A
Sound: N/A
Playability: Typical Infocom, fairly easy problems
Addictiveness: Obviously I'm not a romantic

Scroll Your Own

Let the good times scroll with a few professional background effects.

by Norman Doyle

Stationary screens have their place in the annals of games history but the majority of games now use scrolling screens and this technique separates the mature programmer from the beginner.

There are several ways in which scrolling screens can be achieved and it doesn't mean that everything has to be in machine code. As will become evident, machine code certainly helps but often a standard routine can be used in all of your games.

To show the principles of screen scrolling let's concentrate on lateral (left and right) scrolling. Load BASIC SCROLL and run it. When you've seen enough press a key and list it out.

This is an example of wrap-around screen scrolling. Information is scrolled from the left of the screen back onto the right hand side while the rest of the screen moved one character to the left.

As you can see, when the scroll begins the right-hand column is empty and the left-hand side is merely copied across. Then, starting with the second column, each successive column is copied into the preceding column. After all the columns have moved, the first column is once again moved to the last and so the system repeats. Diagram 1 shows the principle.

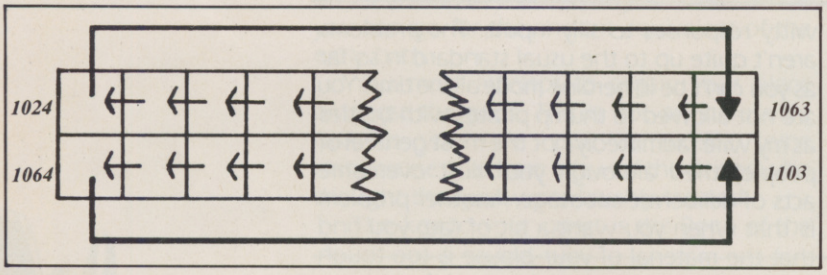


Diagram 1

This looks very untidy and slow. The speed can only be improved by turning to a machine code routine but the screen can be tidied up by closing in the borders on both sides of the screen. This is done by altering one of the bits in byte 53270 ($D016):

```
POKE 53270,PEEK(53270) AND 247
```

Add this as line 1 of the program and see the effect.

2MACSROLL on the disk achieves the same effect in machine code. Load this program with **,8,1** and then type NEW and press RETURN. Now load MACSCROLL and RUN. After the screen has been set up from Basic the scroll is called with a SYS call to 49152 ($C000).

All very pretty but not a basis for a game. Once the SYS call is made, the routine repeats and repeats with no chance for a Basic routine to break in. Load 2MACINT and MACINT in the same way as before with the MACSCROLL programs and you'll see that the scroll continues no matter what you do. The sprite moves around the screen under Basic control and you can even press Stop but the scroll keeps going. To abandon the scroll press and hold Stop and then press Restore.

Using 2MACINT, you could rewrite MACINT to create a simple game. Have a look at 3MACINT for an example. Use F1 and F7 for up and down movement.

Smooth Operator

Despite the speed of the scroll, it's still very jerky. The C64 is one of the few computers which has a hardware scroll. This is a way of simulating smooth scrolling and it can be demonstrated quite easily.

Using the three low bits of 53270, the whole screen can be shifted left and right by a single pixel at a time. Type in the following short program:

```
10 FOR A=0 to 7:POKE 53270,200+A NEXT:
GOTO 10
```

The screen shifts one character column to the left and then shifts back and repeats. If the characters are moved at the end of each cycle then the scroll seems to roll right across the screen. This effect would look ridiculous in Basic but the interrupt routine loaded by SMOOTHINT shows how effective smooth scrolling can be.

For those with a curious mind and a knowledge of machine code you can load the relevant files suffixed by .CODE. Although these programs won't run, you can list them and the machine code mnemonic routines with REM statements can then be studied.

Getting on Down

Vertical scrolls usually travel from the top downwards. The principle is the same as for lateral scrolling but different memory locations are used. Load VERTBAS and study the program. The top and bottom lines are covered by the border using location 53265 in the first line. Similar to before, the bottom line is poked to the top and then each row is moved down one.

The machine code version is loaded from VERTINT. Left and right movement is achieved by the ',' and '.' keys. VERTSMOOTH is the smooth scrolling version. In all cases the interrupt is set in motion with SYS 49152 and stopped by SYS 51200.

The smooth-scroll locations for vertical scrolling are also in 53265 and occupy the first three bits. Substitute 53265 for 53270 in the one-line program that we used to demonstrate smooth horizontal scrolling if you need to be convinced. Also change the 200 POKE value to 24:

```
10 FOR A=0 TO 7:POKE 53265,24+A:NEXT:
GOTO 10
```

I'd be pleased to see the results if anyone creates something they they're really proud of. Send your disk to SCROLL OF HONOUR, Commodore Disk User, ASP Ltd, 1 Golden Square, London W1R 3AB. Please include a return address and if we agree that it's good we may even use it on a future disk and send you a prize for your efforts. When sending your disk, please ensure that it is packed carefully, at least use the card which protected your Commodore Disk User disk, and mark your envelope 'MAGNETIC MEDIUM - DO NOT BEND OR EXPOSE TO MAGNETIC FIELDS'.

Wider Horizons

Most games use longer background scrolls and there is a multitude of different ways in which these can be stored in memory. The simplest is to hold the complete roll in memory just as though it was an extra wide screen. For these demonstrations, the roll is 256 bytes wide and the reason for this will soon be apparent to some readers.

Each line of the wide screen is stored in a long string of memory locations. I created these with the 3 Into 1 Plus screen editor which was on the disk with Volume 1, Issue 1. I reset the base address to $2000 and a window size of $0100 in X and $0019 in Y. This means that the first row lies between $2000 and $20FF which will mean something to machine code programmers. For the unconverted the decimal equivalent is 32768 to 33023.

In Basic the chunky scroll is achieved by filling the screen with the first few bytes of each row of the roll. The next step is to shunt each column of characters to the left and to poke in the next byte from each row of the roll into the hidden right-hand column. This continues until the end of the roll is reached and then the program ends.

Imagine that the memory is a long piece of tape which has been cut into strips 256 bytes long. These are then layed out one under the other and the screen is like a window which runs across the band of strips.

The 6k of memory used for this kind of storage is phenomenal, in Basic you've got problems but in machine code there are many possibilities. If this was one level of a game you couldn't have ten levels stored. This is where your own ingenuity comes into play. You could split the length into blocks which could be fitted together in different ways. Using a relatively small character set these could be arranged and rearranged according to a table stored in memory.

For example, let's imagine that the 256-byte width is divided into eight sections which are 32 bytes wide. We'll assume that any two sections will fit snugly together. There are over 40,000 different combinations, more than enough to keep anyone busy.

To set this up you'd need a table outlining the levels. A series of strings of eight numbers for each level could be stored in memory:

Level 1	01	02	03	04	05	06	07	08
Level 2	01	03	02	05	03	07	05	08
Level 3	01	04	07	06	03	05	02	08
Level 4	01	05	04	03	02	06	07	08
Level 5	01	06	05	07	02	04	02	08

These values could be used as offsets for a jump table to poke each section onto the screen byte by byte. Further compression could be used in this case by using each byte for two levels. The first level would then look like this:

Level 1	12	34	56	78

A suitable handling routine could then split the values and the more the levels, the greater the total memory saving.

Another method would be to use a standard background such as a starfield which would be poked to the feeder line at the right of the screen by a standard randomising routine. This could be overlayed with various, occasional shapes. In memory, these would need a referencing system such as counter value when the shape appears, shape-pattern jump offset value, height on the screen of the top left byte, number of rows and number of columns.

The handling routines for this method would be more complex than before but the overall saving in memory and flexibility would far outstrip the method outlined in the original

▶ ▶ ▶ ▶ ▶ ▶ ▶

example. A saving in memory would result if the width of the overlay blocks were padded out to the same number of columns.

Professional Touches

In this article we've only looked at scrolling the whole screen at the same rate, in the same direction. Using interrupt handling routines it would be possible to create perspective scrolling effects. Depending on the depth required, the number of splits could be decided upon. Usually, this amounts to three splits.

The arrangement of a triple perspective is that the top of the screen represents the distant point and does not scroll at all. The central portion of the screen scrolls more slowly, typically every third interrupt. The nearest perspective point is the bottom of the screen and this moves on every interrupt.

For many games scrolling is only permitted in one direction which means two separate scroling routines on a trisplit screen. If bi-directional scrolling is allowed this means four scrolling routines must be used.

The advantage of a trisplit is that a large portion of the screen doesn't move and the middle section can be wrap around scrolled. This means that a table only has to be set up for the foreground split which might only be 10 characters high. Each level will only require 2.5k of memory, less than half the amount for a full screen scroll.

Whether using Basic or machine code, scrolling broadens the scope of the range of games that can be played and adds that professional look which will impress your friends. Have fun playing with the routines and don't forget to send in your contributions for future issues of Commodore Disk User. ■

LOAD"BASIC SCROLL",8
LOAD"2MACSCROLL",8,1 then NEW
LOAD"MACSCROLL",8

LOAD"2MACINT"8,1 then NEW
LOAD"MACINT",8

LOAD "3MACINT",8,1

LOAD"SMOOTHINT",8 then RUN
2SMOOTHINT is loaded automatically

LOAD"VERTINT",8 then RUN
2VERTINT is loaded automaticallay

LOAD"VERTSMOOTH"8 then RUN
2VERTSMOOTH is loaded automatically

2SMOOTHINT. and 2VERTSMOOTH can be copied to your own disk.

SATELLITE TV
NEW THE MONTHLY GUIDE TO TV FROM SPACE
FREE with Which Video? & Video Today NOT TO BE SOLD SEPARATELY
DAILY PROGRAMME GUIDE
DRAKE ON TEST – TOP SYSTEM REVIEWED
THE LATEST STV NEWS FROM AROUND THE WORLD
COMPLETE BUYER'S GUIDE
STV DATA – THE FACTS AND FIGURES YOU NEED
FREE

Are you receiving it?

SATELLITE TV

Easy to understand
◆
Full programme details
◆
In-depth reviews
◆
Interesting features
◆
Questions answered
◆
and more...

Each month this magazine contains all you need to know about Satellite TV – the latest news, hardware and programme reviews, answers to often-asked readers' questions, interesting features and a comprehensive programme listing for the next month's viewing.

YOU CAN'T AFFORD TO MISS IT!

EACH MONTH WITH video TODAY and Which Video?

OUT NOW AT YOUR LOCAL NEWSAGENT

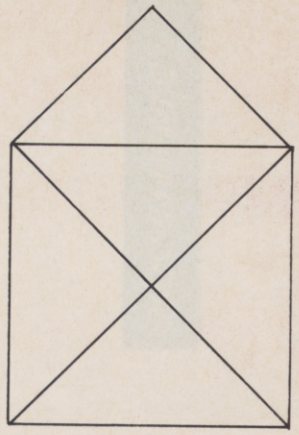
Argus Specialist Publications Ltd., No 1 Golden Square, London W1R 3AB

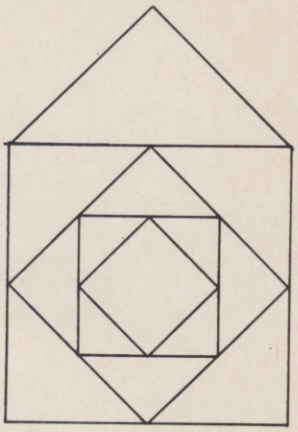
Puzzles

Strain your brain with our latest mind-bogglers

Set by Tarquin Binary

Once again, the time has come for you to test yourself against Tarquin's problematical posers. Once we coaxed him out of the sulk resulting from us including a Spot the Difference competition in the last issue, he was only too happy to set a few insoluble mind-benders, just to take his anger out on someone. Just as in our last issue, the first correct solution for each puzzle drawn out of the hat will net the lucky winner a free Commodore Disk User disk binder. The closing date for all entries is 29th February 1988.





All in one

To solve this one, you have to reproduce the figures below, without lifting your pen from the paper. Naturally, your solution should tell us how the feat was accomplished.

Runes

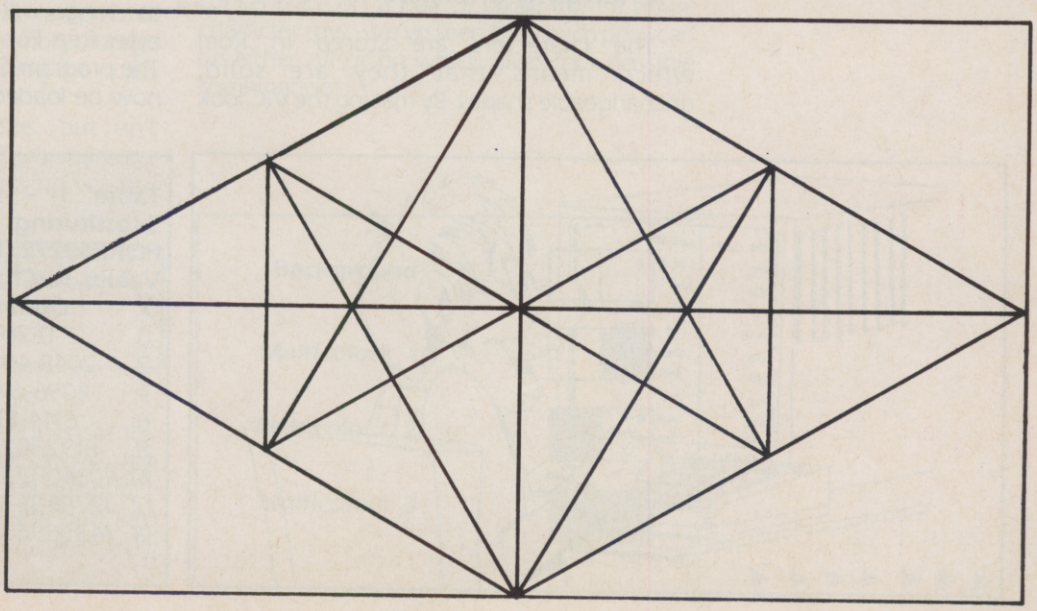
What is the next symbol in the following sequence?

Triangles

How many triangles can you find in the following diagram?

Tournament

You are responsible for organising a mammoth table tennis tournament. There are 1827 competitors. How many matches will have to be played?



Definitive Programming

Any program is improved by using your own character set. Unveil the mysteries with our disk's examples.

By Norman Doyle

The key to professional programming is the user-defined graphics characters or UDGs. To the beginner, the prospect may seem daunting but, by following a few simple rules, the characters can be made accessible. Then your only problem is the design of the characters themselves.

What we mean by characters are the shapes which, in normal mode, resemble the letters of the alphabet, numbers, punctuation marks, mathematical symbols and graphic shapes which you can print on the screen via the keyboard. These can also be produced by poking the characters to the screen. Placing the letter A at the top right-hand-corner of the screen is achieved by:

```
POKE 1024,1
```

The number 1024 is the memory location which the VIC chip perceives as the top left corner of the screen and 1 is the screen mode for the letter A.

An animation effect can be achieved by successive poking of characters to the screen:

```
FOR P=1024 TO 1063:POKE P,1:NEXT
```

Better animation is given if the last printed letter is removed the next time a letter A is printed:

```
FOR P=1024 TO 1063:POKE P,1:POKE P1
,32:NEXT
```

The effect of movement is created by poking a space (32) into the previous square almost at the same time as the A is poked into its new position on the screen.

If A can be changed to look like a little alien, a whole new world opens up but a few preparatory alterations have to be made.

Changing Character

The characters are stored in Rom which means that they are solid, unchangeable shapes. By making the VIC look into Ram (alterable memory) for the characters we can then redefine any letter to a shape of our own choosing. First we need to know how the VIC chip finds its character.

The arrangement of memory can be confusing to the novice because the manuals will all tell you that the VIC can only access 16k of Ram at a time. This means that the screen and the character definitions must all lie within the same block of memory. This splits the memory into four possible areas:

0-16383 ($000-$3FFF)
16384-32767 ($4000-$7FFF)
32768-49151 ($8000-$BFFF)
49152-65535 ($C000-$FFFF)

In normal operation the screen starts at 1024 ($0400) which means that the characters must lie somewhere in the first block. Character Rom, however, starts at 53248 and ends at 57434 ($D000-$DFFF). As you can see this is well removed from the 16k block that the VIC can 'see'. Despite this, the operating system is not exempt from the 16k rule but it gets round the problem by projecting a ghost image of the characters set to 4096 ($1000), which definitely lies in the correct range.

Even though this is in Ram memory the image still resembles Rom and cannot be changed. The first task is to select an area for the characters, then we'll move the official character set into this area and play about with the possibilities.

The character set can be located in any of the blocks shown in Table 1. Locations 0 to 2047 are used by the operating system and screen, so they're out. Locations 4096 to 8191 are used for the ghost character set and cannot be used from Basic. Anywhere else in the range will do as long as there are 4096 bytes free. For now we'll use 12288 upwards. The program CHARMOVE on the disk should now be loaded and listed.

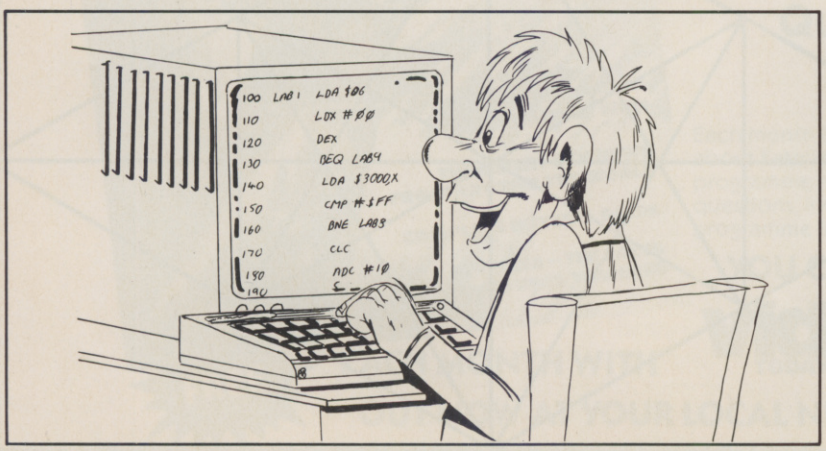


Table 1 - Memory shift values for Substituting as X in the Equation: POKE53272,(PEEK(53272)AND 240)+X

X	Decimal	Hex	Values forCharacter Memory Location
0	0-2047	$0000-$07FF...	O/S Ram
2	2048-4095	$0800-$0FFF	
4	4096-6143	$1000-$17FF.....	Character
6	6144-8191	$1800-$1FFF.....	Rom image
8	8192-10239	$2000-$27-FF	
10	10240-12287	$2800-$2FFF	
12	12288-14335	$3000-$37FF	
14	14336-16383	$3800-$3FFF	

To make a copy of the character Rom that can be used by short Basic programs we'll have to move the top of Basic memory down to protect our new character set. This is done with:

```
10 POKE 52,48:POKE56,48:CLR
```

Next we have to switch off the interrupts so that the computer doesn't lock up during the next stage (the 56334 POKE). Before we can start the transfer, the character Rom must be revealed, with a POKE to the 6510 controller (located at byte 1 on the memory map).

Now the transfer begins by poking the characters at memory location 53248 upwards to the new area at 12288. This takes a little time in Basic so be patient.

When the words 'transfer ended' appear, the program has switched the character Rom back out, restarted the interrupts and switched to the new character set. If you don't believe this, after all, the screen hasn't changed, try the following POKE and watch the A of 'transfer' on the screen:

```
POKE 12288+10,126:POKE12288+11,255
```

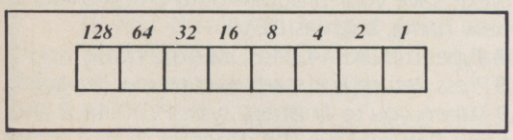
On pressing Return, the A changes into a little hut. Try poking values up to 255 into locations 12296 to 12303 and you'll see that the A becomes unrecognisable.

Character design

What are the rules for defining the characters? How does a number determine the style of a line? The answer is that the byte relates directly to the screen character.

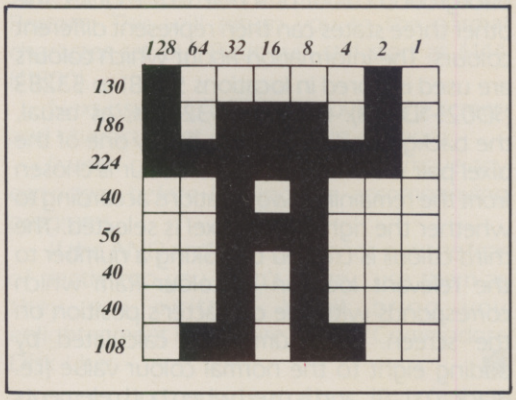
As you've seen, each character consists of eight bytes which correspond with the eight rows constituting the character area. Within each line there are eight pixels, or spots of light, and the binary nature of memory storage provides an ideal method of turning the pixels on and off.

Knowing about binary helps, but isn't essential to, character design. Each character line is calculated using the following values:



Calculating each line in isolation is not the best way to design a character, and so the answer is to draw up an eight square grid:

Try poking the values from the grid into memory locations 12296 to 12303 and you'll see how A can become a Space Invader.

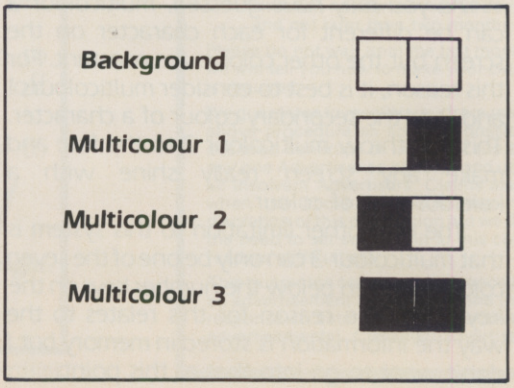


Colourful characters

There are two things that I find annoying about UDGs, One is the lack of colour, the other is the small size. The second problem can be overcome by combining several UDG character squares together to form on creature. This is often necessary when you decide to add extra colours with multi-colour mode graphics.

What you gain on colour, you lose on the horizontal detail. Most games rely on multi-colour to liven up the screen display but the extra colour information that has to be communicated results in a loss of resolution (fine detail). Instead of having eight individual pixels in each row of the character, you only have four double-width pixels.

Forget about colour for a moment and just concentrate on a pair of pixels from a single character row. We've seen how each pixel can be either off or on which gives four possible combinations:



If both pixels are off you get the background colour or a hole in the UDG. The other three states can then represent different colours. The information about which colours are used is stored in locations 53281 to 53283 ($D021-$D023). Location 53281 is, as usual, the background colour but, if only one of the pixel pair is switched on, the colour is chosen from the remaining two locations according to whether the right or left pixel is selected. The third colour is created by poking a number to the relevant location in colour Ram which corresponds with the character's position on the screen. This number is calculated by adding eight to the normal colour value (i.e. Black=0+1=8), and is used when both elements of the pixel pair are selected. Colour Ram lies in the 1000 locations from 55296 ($D800-$CBE7). Though there are only four double-width pixels in each byte, there are still eight bytes per character and the values can be calculated from Table 2:

Background	*0*	*0*	*0*	*0*
Multicolour 1	*64*	*16*	*4*	*1*
Multicolour 2	*128*	*32*	*8*	*2*
Multicolour 3	*192*	*48*	*12*	*3*

Kaleidoscope

As you may have guessed, multicolour 3 can be different for each character on the screen but the other colours are constant. For this reason, it is best to consider multicolours 1 and 2 as the secondary colour of a character. This will throw multicolour 3 to the fore and make any screen really shine with a kaleidoscope of colour.

The only other limitation to this system is that multicolour 3 can only be one of the seven colours written below the number keys on the keyboard. The reason for this relates to the way the information is stored in memory but I don't want to go into that at this point.

Memory Management

Until now, the programs have used memory location 12288 for the new character set but this limits the amount of space for Basic to just under 10k. Earlier we saw the reason for not using any location below 2048 ($0800), but there's no reason why we can't raise the start of Basic from 2048 and store characters here instead. This would also make the characters created with Tony Crowther's 3 Into 1 Plus editor program (Commodore Disk User, Vol 1 No 1) directly compatible with ordinary Basic programs.

It's best to raise Basic before you start to enter your program. This is done by typing in:
POKE44,24:POKE46,24:CLR
Basic now starts at 6144 ($1800) which means that there is room for 512 character definitions which replace the normal upper case and graphic set and their reversed-out versions.

To make the program run properly a boot program is best included at the normal Basic start (2048) which resets Basic to where your program lies but means that you lose three defined characters.

Procedure

Programming procedure now becomes:

1 Create your characters with 3 Into 1 Editor but avoid using characters 00, 01 and 02.
2 From the Editor SAVE to disk from characters 03 up to the last character you have redefined.
3 Switch the computer off and then on again.
4 Load BOOTSTRAP from this month's disk.
5 Load back your 3 Into 1 created characters using ,8,1 after the load command.
6 For safety's sake, list the new program. All you'll get is:
10 POKE44,24:CLR:RUN
Next, save your program onto a disk under a new name, such as DEV1.
7 Type in POKE44,24:POKE46,24:CLR
8 Press Return and start to write your program.
9 When you're finished, type POKE44,8 and press Return. Save the program to disk using the normal ,8 command, without a secondary address.

When your program needs the new character set the program should use a line containing: POKE 53272,(PEEK(53272) AND 240)+2.

If you want to return to the standard character set you can use: POKE 53272,(PEEK(53272)AND240)+4.

An example program, NEWCHARS is given on the disk. Feel free to load it, type in the POKEs for locations 44 and 46, and then examine its structure - I've kept it short so that dissection won't be too difficult.

For multicolour characters, the process is exactly the same but remember to set up the colours and use POKE 53270,PEEK(53270) OR16 to turn on the mode and POKE 53270,PEEK(53270)AND239 to switch multicolour mode off.

If at any point during testing your programs you get stuck with redefined characters on the screen, hold down the Run/Stop key and press Restore. This will return you to the normal character set but Basic will still start at 6144 ($1800).

Next issue we'll look at moving the screen and character set elsewhere in memory.

Switch off your computer and remove any cartridges before loading the accompanying programs.

If the AND and OR commands put the fear of death into you, don't worry, use them as they are written. We'll bring you enlightenment in a future issue of Commodore Disk User.

It's easy to complain about an advertisement. Once you know how.

One of the ways we keep a check on the advertising that appears in the press, on posters and in the cinema is by responding to consumers' complaints.

Any complaint sent to us is considered carefully and, if there's a case to answer, a full investigation is made.

If you think you've got good reason to complain about an advertisement, send off for a copy of our free leaflet.

It will tell you all you need to know to help us process your complaint as quickly as possible.

The Advertising Standards Authority.
If an advertisement is wrong, we're here to put it right.

ASA Ltd, Dept 1 Brook House,
Torrington Place, London WC1E 7HN

This space is donated in the interests of high standards of advertising.

MAIL ORDER ADVERTISING

British Code of Advertising Practice

Advertisements in this publication are required to conform to the British Code of Advertising Practice. In respect of mail order advertisements where money is paid in advance, the code requires advertisers to fulfil orders within 28 days, unless a longer delivery period is stated. Where goods are returned undamaged within seven days,the purchaser's money must be refunded. Please retain proof of postage/despatch, as this may be needed.

Mail Order Protection Scheme

If you order goods from Mail Order advertisements in this magazine and pay by post in advance of delivery, Argus Specialist Publications Ltd will consider you for compensation if the Advertiser should become insolvent or bankrupt, provided:

(1) You have not received the goods or had your money returned; and

(2) You write to the Publisher of this publication, summarising the situation not earlier than 28 days from the day you sent your order and not later than two months from that day.

Please do not wait until the last moment to inform us. When you write, we will tell you how to make your claim and what evidence of payment is required.

We guarantee to meet claims from readers made in accordance with the above procedure as soon as possible after the Advertiser has been declared bankrupt or insolvent (up to a limit of £2,000 per annum for any one Advertiser so affected and up to £6,000 per annum in respect of all insolvent Advertisers. Claims may be paid for higher amounts, or when the above procedure has not been complied with, at the discretion of this publication but we do not guarantee to do so in view of the need to set some limit to this commitment and to learn quickly of readers' difficulties).

This guarantee covers only advance payment sent in direct response to an advertisement in this magazine (not, for example, payment made in response to catalogues etc., received as a result of answering such advertisements). Classified advertisements are excluded.

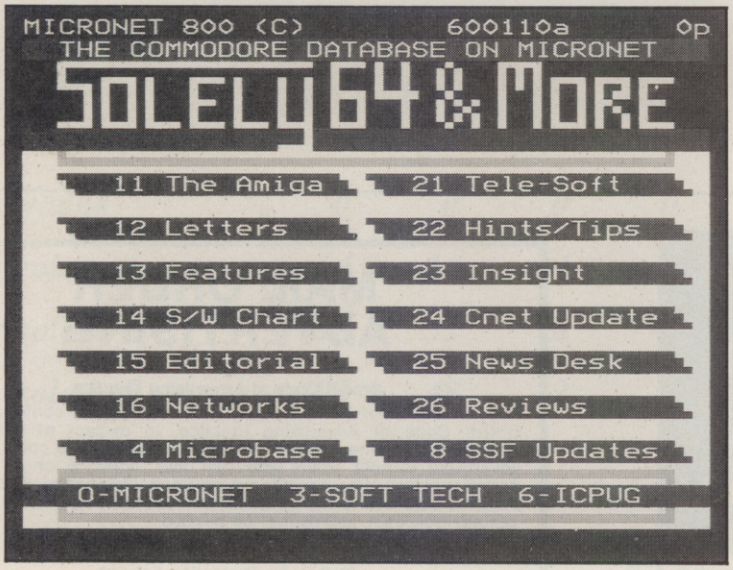
Linking into Micronet

Steve Gold draws aside the veil that surrounds Britain's most popular online service...

When Prestel was launched in the late 1970s by the then Post Office, it was hailed as the ultimate information medium. Time - and money - has proved the P.O. executives who conceived of Prestel as such a medium, fairly and squarely wrong.

In 1979, the P.O. sales force predicted millions of terminals by 1984, with every household accessing Prestel for its information resources by 1989. Until 1983, however, Prestel never took off, on account of its creators' failure to comprehend the nature of what they were dealing with. So what went wrong?

Most people saw Prestel as little more than a souped-up version of teletext -what we know as Ceefax on BBC1 and Oracle on ITV. The key factor which everyone overlooked - until 1983 - was the interactive aspect of the system. As well as being able to flip through several hundred thousand pages of colourful data, users could interact with the pages, and even create data and electronic mail for sending to other subscribers on the system.



Foreseeing the potential of the system, East Midlands Allied Press persuaded British Telecom in 1983 to invest money in a fledgling information provider on Prestel called Micronet 800. The 800 in the title, incidentally, was because the service's main page was - and still is - on page 800 of Prestel.

Since those early days, when Micronet was seen very much as an electronic version of a weekly/monthly newstand magazine, Micronet has gorwn up with its members, who currently number about 25,000 out of Prestel's 85,000 overall subscribers.

Micronet's services now include national electronic mail (mailbox), 24-hour CB-style chatlines, and a comprehensive news service, neatly sub-divided into reader interests.

Not nine to five

In all, 28 staff work at Micronet's central London headquarters, just behind the London Guardian offices. Like their Guardian colleagues, Micronet staff shun the normal 9-5 routine that much of the City adheres to.

This is, in part, due to the charging system that Prestel - and Micronet in turn -charges its subscribers. A subscription to Micronet costs £16.50 per quarter year, on top of which normal telephone charges must be paid. For most subscribers in the UK, a local phone call (around 50 pence an hour during off-peak times) is all that is required for a call to Prestel and Micronet. In addition to this - during office hours (Monday to Friday, 8am to 6pm, and 8am to 1pm on Saturdays) - a 6 pence per minute surcharge is levied.

This sounds quite steep, but it is imposed by Prestel to pay for the Citiservice and Travel Service sections on the network. Outside of these hours (i.e. evenings and weekends) is usually when Micronet subscribers log on to the network.

What you need

To log onto Micronet, all computer users need a modem (short for MOdulator/ DEModulator) and suitable software. In addition to this, computer users with machines without a true serial port (the Commodore 64 and 128 series are a case in point) on their machines require a serial adaptor to plug the modem into. Some modems come with a computer serial port adapter as standard.

To make life easier for the home user. Micronet is currently giving away a free modem, and suitable software, free of charge to new subscribers - provided they shell out £66 in full (the first year's subscription) when they sign up.

Since the modem, interface and software are worth in excess of the £66 fee, it makes sound economic sense that all prospective modem users think carefully about the Micronet offer, even if their primary intention is to use an alternative service. Whichever way you look at it, the £66 offer is good value for money.

What's on tonight

As we've mentioned previously, Micronet has a daily news service. Up to six stories a day are available on the service - 365 days a year, including Christmas Day. News, like all Micronet pages, is uploaded, literally as an event occurs. Most major computer shows and product launches are covered by Micronet's news staff and a small band of freelance computer writers dotted around the country.

Often, news pages are prepared at the show or in writers' homes, for eventual uploading to the Prestel computers within minutes of their being complete. In this way, Micronet claims to be able to bring the news to its readers faster than any other computer-oriented medium.

As well as news, several groups of computer-related pages are loosely linked together under the title 'microbases'. Each microbase area has its own respective editor, and yes - before you ask - there is a Commodore area!

The Commodore microbase is coordinated by Andy Waller, a dedicated freelance Commodore enthusiast, whose personal computer collection amounts to several C64s and an Amiga. Andy edits most of his pages on a Commodore Amiga, using the Rubyview software from Y2 Computing.

The Amiga's graphics and display capabilities are astounding, and enable Andy to create several frames offline and to update them at high speed onto the Prestel network.

Telesoftware

Pioneered on the Prestel network in the early 1980s, telesoftware has grown to form a major part of Micronet's subscriber service. Micronet provides a constantly varying supply of free software for its readers. Subscribers to Micronet needn't laboriously type each data statement in by hand, just as with some computer magazines. Instead, by using an option on their view data software, Micronet subscribers can download software over the phone - for later running on their machines when offline. Such software is called telesoftware.

While several dozen programs are supplied free of charge for subscribers in the Commodore 64/128 area, a number of the programs are chargeable and added to your bill at the end of each quarter. This might seem superfluous, especially since one can buy such software from the shops in major towns. But can you buy software at 2am on a Sunday morning? On Micronet you can!

Moreover, because Micronet sells directly to its subscribers, bypassing the expensive distributor/dealer route that often absorbs 50 per cent of the end-user price of games software, it can offer deep discounts on shop prices.

Cassette and disk inlays are no problem either, since Micronet dispatch the inlays by first class mail upon receipt of a pre-addressed electronic mail item - available for filling in after each chargeable download.

As can be seen from the frames in the picture, Codemaster programs are just some of the new chargeable packages available on Micronet. Compared to Codemaster's normal £1.99 price tag, Micronet is offering a clear 15 per cent discount, leaving another 30 pence for subscribers to spend another time

At the time of writing, CDU's sister magazine, Your Commodore, is in the final stages of uploading its own telesoftware to Micronet for easy downloading by subscribers. The listing will, of course, continue to be available free of charge in the printed version of the magazine, but telesoftware will save all the laborious typing-in of programs.

Mailbox and Chatlines

As mentioned earlier in this article, Micronet subscribers have the ability to 'talk back' to the system - and other subscribers - via mailbox and response frames. Mailbox involves users going to one of several dozen frames - ranging from the simple no-nonsense message frames, through to colourful and special occasion mailboxes. Then, by addressing the mailbox (inserting the user's mailbox number), a message can quickly be sent. Mailbox's numbers are freely available on the network in the online equivalent of a telephone directory.

Mailbox is an extremely popular facility on Micronet, with more than 100 mailboxes per person per month sent in recent months. Because mailbox is free, two Micronet subscribers situated several hundred miles apart can communicate for the price of a local telephone call.

Another feature of Micronet is the chatline, which operates with users sending in a mailbox entry to the central computer, for almost immediate display on the network. By skilful use of the service, many subscribers find they can chat;with each other on a communal basis, with such conversations going on long into the night.

The future of Micronet

Micronet is clearly still in its infancy. Barely into its fifth year, the service has changed dramatically since its March 1983 inception. The next five years will see

MICRONET (c) 800a 0p
MICRONET
Keying *0# from any page will always take you to your front page.
1 News and Comment
2 Microbases
3 Communications
4 Software
5 Prestel Focus
6 Games and Entertainment
7 Teleshopping/Advertising
8 Business & Consumer Info.
What's New Today: Key #
FULL A-Z INDEX: Key 01
Key 9 for a message from Micronet
HELP? Key 0 from any page

equally dramatic changes, as hardware changes on the Prestel network allow faster frame accesses and telesoftware downloading.

In many respects, like Commodore Disk User, the variety of services on Micronet is limited only by the ingenuity of its staff, many of whom graduated from mere subscribers, having become interested in taking a more active role in the service.

For further information on Micronet contact:
Micronet 800,
8 Herbal Hill,
London EC1R.
Tel: 01-278 3143.

Free Prestel Demonstration

If you have access to a computer, modem and suitable viewdata software, you can access the Prestel demonstration database by following this simple procedure:

1. Dial the following number for your area (omitting the initial trunk code where appropriate):

London & South East:	01-618 1111
Birmingham & Midlands:	021-618 1111
Scotland - Edinburgh:	031-618 1111
Scotland - Glasgow:	041-618 1111
Liverpool & NorthWest	051-618 1111
Manchester & NorthWest:	061-618 1111

(When in doubt use the London 01-618 1111 code)

2. Once carrier is heard, place your modem online (refer to modem instructions if appropriate).

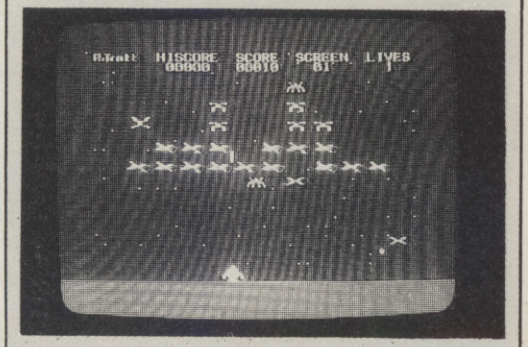
3. Use a logon ID of ten 4's (4444444444) and a password of four 4's (4444) and follow the on-screen instructions.

▶ ▶ ▶ ▶ ▶ ▶ ▶

Micronet Programs

To whet your appetite, Micronet has provided seven programs, three games and four utilities, as a bonus on the Commodore Disk User disk. All are loaded by using the format LOAD "filename",8,1 except for the SCROLLBASIC program which demos the fast scrolls. Load this as Basic with a LOAD "SCROLLBASIC",8. and RUN.

Xeropus



Galaxian fans should really love this well produced clone.

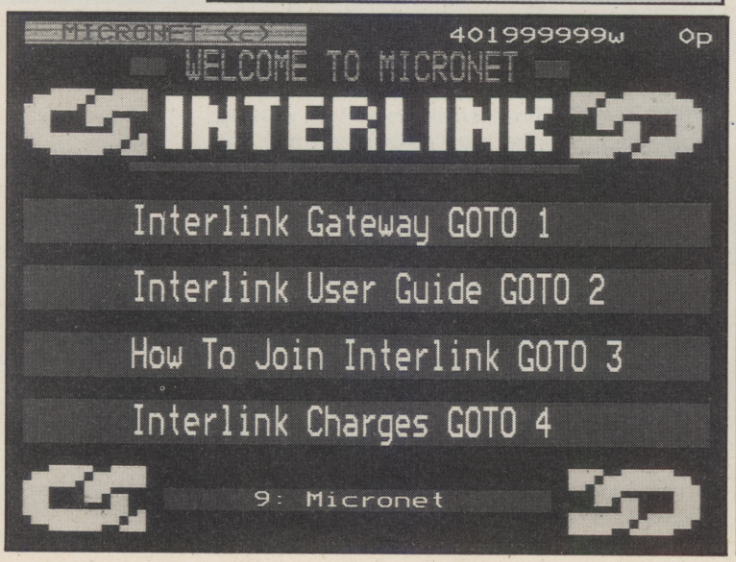
By the time the little blighters have finished bombarding you, Trafalgar Square and its pigeons will seem pretty tame.

This program is yet one more example of just how little memory need be used to turn out a good game.

The game is controlled by a joystick in port 1 and you can pause the action for a breather by pressing F5.

Smooth Scrolling

A very flexible program this, from Eddy Carroll. Various parameters can be changed, instructions for which are contained within the program. You can load 'SCROLLCODE' from your own programs. See lines 0 and 1 of SCROLL-BASIC for a boot loader.



Border Clock

This is the first of a series of useful utilities from the very talented Edward Carroll.

Border Clock places a digital clock in the bottom border of your 64 screen and is interrupt driven. This means that the clock will remain on display while you are writing or even running any Basic program that does not use sprites 0,1 or 2. In fact, you can even run a machine code program, so long as it does not use interrupts or memory $C000 to $C280. Instructions on setting the clock are contained within the program.

Menu Maker

Menu Maker is another telesoftware program by Eddy Carroll.

This program allows you to create a menu of all programs on a particular disk and save the menu onto the same disk.

When you want to load any program from a menued disk, just load the MENU, decide whether you want to turboload the program and select the program you wish to load. (When you see the prompt, 'Insert New Disk', this means insert the disk on which you wish to save a menu.)

Cosmic Cavern

Cosmic Cavern demonstrates once more that you do not need to make excessive use of memory when creating a playable game that makes use of UDGs, split and scrolling screens etc. The actual game code for Cosmic Cavern is just a little under 2560 bytes.

Guide your spacecraft along the cavern whilst being careful to avoid the walls and many shootable obstacles. A pulsing speed booster will cause some problems.

Full on-screen instructions for playing the game are contained within the program.

Fast Formatter

Although many 1541/70 drive users have probably got a fast disk formatter in one form or another, there are no doubt several who are still plodding away with the standard 90-second Commodore DOS format.

These unfortunate few can now forget the 'snail pace' format and join the 'jet set' with Fast Formatter. It's not quite as fast as some of the commercial fast formatters but it will reduce your disk formatting time by 1 minute to a little under 30 seconds.

Contributions

Written some programs? Got some programming wisdom to pass on? Or do you want to write about your own fields of interest? We're waiting for your contributions.

Commodore Disk User doesn't just offer you the chance of appearing in print, but of putting your programs on our disk for all to admire. We're always on the lookout for new programs for the disk. Anything goes, utilities, games or business programs in Basic or machine code - if we think it's good, we may well publish it.

Even if you haven't got a program to send, we'd love to pick your brains. If you have a field of expertise you'd like to explain or any tips and hints of interest to disk users, send them in.

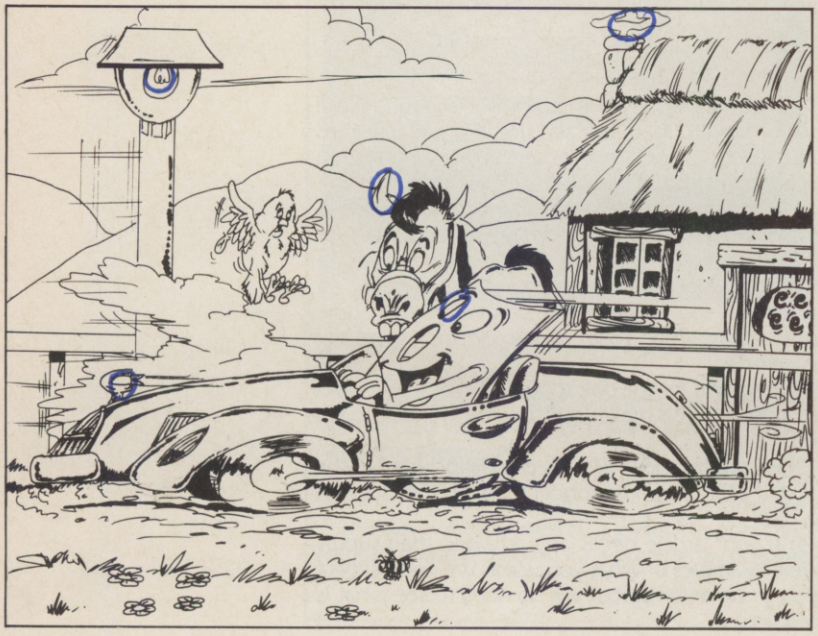
But how do you go about preparing a submission? Just follow the guidelines and all should go well. You don't have to be a great novelist to contribute, but if you follow our simple rules then it will make our job a lot easier.

1) If possible all material sent to the magazine should be typed or printed out on a computer printer.
2) All text should be double-spaced, i.e. there should be a blank line between each line of text. You should also leave a margin of at least 10 characters on each side of the text.
3) On the first page you should put the following:
   Name of the article
   Machine that it is for (C64/128)
   Any extras required - disk, printer, add-ons etc.
   Your name
   Your address
   Your telephone number
4) The top of every page should have the following information on it:
   Abbreviation of the article title
   Your name
   The page number
   For example, suppose you had submitted a piece on C64 3D graphics. You should put something like this at the head of the page:
   3D/G. Brown/1
5) Please make sure that you do not make any additional marks on your text, especially underlining.
6) Try to write in clear concise English. Your contribution does not have to be a great work of literature, but it must be comprehensible.
7) On the bottom of each page you should put the word MORE if there are more pages to the article, or ENDS if it is the last page.
8) If possible, enclose a listing of all programs.
9) Use a paperclip to hold the pages together. Do not staple them.
10) When submitting programs for the disk, submitting the program alone is not enough. Please tell us how to load, run and use it, preferably in as much detail as possible. If there are any interesting programming point involved, explain them to us.
11) Please do not submit machine-code programs as Basic loaders of the sort certain other magazines would accept. If you have any points, however, to make about the working of the program, an assembler source file on the disk would be handy, preferably for Your Commodore's Speedy Assembler.
12) Programs for the disk should be in as few chunks as possible. This makes our disk menu easier to set up.
13) Programs under 10 lines can be included in the text. If your program is longer than this it must be on a disk.
14) If your article needs any artwork, then supply clear examples of what you want. We don't expect you to be an artist, but we do need to see what is required.
15) Photos, if necessary, must be either black and white prints or colour slides. We can take shots ourselves, so don't worry about this too much.
16) Submissions of any length are welcome. A five-line routine may be just as welcome as a six-part series of 2000-word articles.
17) Payment varies quite a lot and depends on quite a number of factors, such as complexity and presentation of program. For articles, the number of magazine pages taken up is the salient factor.
18) All payments are made in the month that the magazine containing your article has appeared in print.
19) If we do find your submission suitable for inclusion in the magazine, we will write to you giving the terms of publication, the rate of payment, and an agreement form. Prompt return of this form will allow us to use your program as soon as possible.
20) If you want the program to be returned to you, should we find it suitable for publication, then you should enclose a stamped addressed envelope.
21) If you use a wordprocessor, then enclose a copy of your text on the disk and state clearly which wordprocessor you use.
22) Send your programs and articles to:
   Commodore Disk User
   Submissions
   1 Golden Square
   London W1R 3AB
23) Commodore Disk User cannot accept any liability for items sent to the magazine.

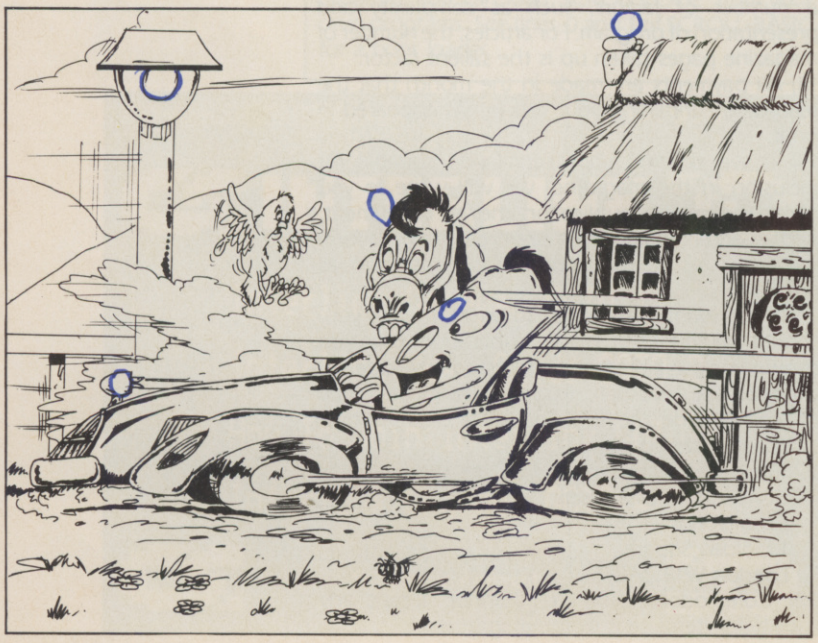
COMPETITION

WIN AN EXCELERATOR +

An Excelerator+ disk drive and five slimline 64 cases up for grabs in this month's competition



SPOT THE DIFFERENCE COMPETITION



For this month's competition we have teamed up with Evesham micros to offer a bundle of superb prizes.

An Excelerator+ is up for grabs as the first prize and five runners up will each receive one of Eveshams superb new cases for the C64, the Slimline 64.

Just in case you haven't come across the Excelerator+ before, it offers complete compatibility with Commodores 1541 drive while being much smaller and slightly faster than its Commodore counterpart.

How to Enter

Study the two cartoons, there are a number of differences between them. Once you have decided how many differences there are complete the entry coupon and send it to the editorial address (see below). Please write the number of differences that you have found on the back of the envelope. If you don't then your entry will not be accepted.

The Rules

Entries will not be accepted from employees of Argus Specialist Publications and Evesham Micros. This restriction also applies to employees' families and agents of the companies.

The How to Enter section forms part of the rules. The Editor's decision is final and no correspondence will be entered into.

Evesham Competition Entry Coupon

Name .....

Address .....

.....

.....

Postcode .....

Number of differences found .....

Post to: Commodore Disk User, Evesham Micros, 1 Golden Square, London W1R 3AB. Closing date: Friday, 26th February 1988.

SUBSCRIPTIONS SENSATIONS!

AT COVER PRICE ONLY!

Any of the magazines from the list below can be delivered to your door with : NO handling charge NO postage costs

A&B Computing	£18.00
Aeromodeller	£22.20
Citizens Band	£16.20
Clocks	£27.00
Commodore Disk User	£15.00
Disk User	£17.70
Electronics Digest	£11.00
Electronics Today International	£16.80
Ham Radio Today	£15.60
Military Modelling	£15.60
Model Boats	£15.60
Model Engineer	£26.40
Photography	£15.00
Photoplay	£12.00
Popular Crafts	£16.20
Radio Control Model Cars	£16.20
Radio Control Boat Modeller	£7.50
RCM&E	£14.40
Radio Control Scale Aircraft Quarterly	£9.00
Radio Modeller	£14.40
Sea Classic International	£11.70
Scale Models International	£15.00
Video Today	£15.00
Which Video?	£15.00
Woodworker	£15.60
Your Commodore	£14.40
Model Railways	£13.20
Practical Wargamer	£7.80

The Above Prices Refer to U.K. Subscriptions Only

This offer is also open to existing U.K. subscribers who may wish to extend their current subscriptions.

Please commence my subscription(s) To.....with the.....Issue
I enclose my cheque/money order for £.....made payable to Argus Specialist Publications Ltd.
or debit £.....from my Access/Barclaycard No. | | | | | | | | | | | | | | | |
valid from.....to.....Signature.....
Name.....
Address.....
.....

Access

Send this form with your remittance to:
INFONET LTD. (N.R.S. 88) 5 River Park Estate, Berkhamsted, Herts. HP4 1HL.

VISA

DON'T GET LEFT OUT... GET IN ON THE ACTION

COMMODORE DISK USER is a lot more than just another computer magazine. Every issue carries a diskette containing more than £30 worth of software ranging from serious programming utilities to arcade games. There are plenty of Commodore magazines on the market, but we believe that this is the *first* to cater for disk users of all ages and tastes.

The BUMBER second issue will contain on disk:

- **★ Disk Librarian - Get your disk collection totally organised with our easy-to-use indexing program.**
- **★ Disk-Mate - No more hard-to-remember disk commands for you, let this utility make your life easier**
- **★ Quad - a totally original twist on a familiar game theme.**
- **★ Five-Up - A demanding game of chance and skill.**
- **★ Noluxe Paint - design screens to teletext standard.**

...and lots more.

The magazine will include full details of how to use the programs, plus a wealth of reviews and features. This month we take a look at SSI's latest range of thoughtful games. Micronet tells you how to get on line and you get the chance to win an Excelerator disk drive. Plus news, reviews, and our mind-bending puzzle page.

COMMODORE DISK USER is what you have been waiting for – take out a subscription TODAY!

SUBSCRIPTION RATES

£15.00 for 6 issues U.K.
£18.00 for 6 issues EUROPE
£18.20 for 6 issues MIDDLE EAST
£19.30 for 6 issues FAR EAST
£18.40 for 6 issues REST OF WORLD
Airmail Subscription Rates on Request

Send your remittance to:
INFONET LTD., 5 River Park Estate, Berkhamsted, Herts. HP4 1HL.

Please begin my subscription(s) to COMMODORE DISK USER with the ..... issue
I enclose my cheque/money order for £..... made payable to Argus Specialist Publications Ltd.
or debit £..... from my Access/Barclaycard No. .....
valid from ..... to .....
NAME (Mr/Mrs/Miss) .....
ADDRESS .....
.....
Postcode .....
Signature .....
Date .....

Please use BLOCK CAPITALS and use post codes.